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COMPETENCIES OF MODERN MUSICIAN ENTREPRENEURS:
THE ROLE OF DIGITALIZATION
IN THE MUSIC INDUSTRY

A Dissertation
by
RICHARD ARISTEO RODRIGUEZ

Submitted in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Major Subject: Business Administration

The University of Texas Rio Grande Valley
August 2023

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August 2023

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ABSTRACT

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The culture creation industries are undergoing a period of accelerated digitization, globalization, and democratization. The 21st century music industry is bustling with lowered barriers to entry, increased knowledge sharing, and direct to consumer models which have resulted in a gold rush of entrepreneurial opportunities for musicians and increased competition to music firms and superstars. The music industry has been subject to innovative disruption providing valuable insight on the nuances of this paradigm shift for music entrepreneurs and scholars alike. Specifically, I explore competency factors in artist's journey from musicians to entrepreneurs with successful self-managed careers. Employing Lazear's Theory of Balanced Skills, I develop a survey instrument and 2x2 framework to discern between high and low levels of entrepreneurial business competencies and high or low levels of artistic competencies including creativity and musical competencies. I conclude by testing survey data from Prolific analyzing the relationships between business competencies, music, creative competencies, financial and non-financial performance, and the moderating role of digital adoption as measured by a questionnaire deployed to 232 active musicians between April and May of 2023. Results identify significant competencies across the 3 domains studied as well as positive and negative moderation by digital acceptance on the relationship between competencies and performance.

DEDICATION

Our families and friends have the power of shaping the trajectory of our lives in a myriad of meaningful yet incalculable ways. I would like to begin by thanking my mother Paulina Calderon Rodriguez for giving me the gift of life and hunger of ambition. To my father Ricardo “Richard Steamboat” Rodriguez for exposing me to the greatest music in history, a lifetime of rockumentaries, home recordings, and countless instruments which fueled the passion, wonder, and infinite curiosity I have for all facets of the music industry. Your love and the struggles in life we faced has forged me into the man I am today. It is said that we try to give our children the things we didn’t have in life, but it is equally important to share with them the things we did get. And so, to my daughter Melynda: I promise to fill your life with the tidings of a good home, thrilling spaces to play and grow, and lots and lots of love. To Norma Gaucin, the mother of my daughter and my auspicious soulmate, thank you for your unending support and infinite company: It’s because of you that I have been able to flourish in this world. You are the carpenter’s ruler that the universe has bestowed upon me—with you my life is made right. Lastly, to my friends, co-workers, and mentors whose positive influence permeates the words on these pages: Alejandra Sandoval, Michelle Paiz, Roel Cruz, Dr. Jorge Gonzalez, Dr. Sibin Wu, and Dr. Kaynak. Special thanks go to my brothers Daniel and Eduardo Rodriguez, as well as Chucho, Roger, Joe and all the friends and loved ones I’ve had the pleasure to play and perform with...thank you from the bottom of my heart and inner most recesses of my soul. My world would not be the same without you.

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CHAPTER I

INTRODUCTION

“Music is spiritual. The music business is not” – Van Morrison

“Trust me, it is impossible to be an artist and have nothing for sale.” – Jim Pirtle

1.1 Music is a Business

The music industry is a global business generating billions of dollars annually with a unique historical context that has time again withstood environmental pressures and uncertainty (Gronow and Saunio, 1998). Whether disruptions stem from large scale changes in product innovation or survival in the age of digitalization, it remains that music firms and the artists musicians therein have endured conditions of dynamism and proven both resilient and profitable (Covert, 2013). Historically, the music industry was a highly profitable market during the 20th century (Tschmuck, 2003). The explosion of Rock and Roll in the 1950's and the counterculture of the 1960's resulted in a steady increase of vinyl record sales peaking at over \$15 billion in the late 1970's. After a period of declining sales, innovations in portable music fueled by the Walkman and Compact Disc players resulted in an all-time high of \$21.5 billion in revenue during the late 90's (Lhermitte, Perrin, and Blank, 2015). Notably, in 2002 CDs were responsible for 95.5% of the music industry's total revenues. With the advent of personal computers, digitization of media content, and preponderance of online file sharing, music consumers took advantage of decreases in costs and increases in convenient access to music which, in turn,

created a consumer surplus of cultural music goods (Peltoniemi, 2015; Hesmondhalgh, 2002; Throsby, 2001). The music industry noted rapidly declining sales in revenue with sales of physical units decreasing worldwide to a low of about \$6.9 billion in 2015, adjusted for inflation.

For the first time in over 20 years, the music industry is again experiencing growth in revenue. Sales in physical units continue to decline, however new markets are being now capitalized upon with digital sales on the rise year after year. From 2015 to 2016, there was an increase from \$6.6 to \$7.8 billion in digital sales supported by paid streaming services and ad-Supported revenue (Tschmuck, 2003). In 2017 there was a 5.9% increase in global revenue growth, 17.7% increase in digital revenue growth, and a 7.6% decrease in physical revenue. Of this global music revenue, North America has 44.4% Market Share at \$7.73 billion a year followed by Europe and China both holding 22%. Evidently, music is big business (Santilan and Schreiber, 2017). There are three major record labels that dominate a music industry market share upwards of \$5.2 billion with independent (indie) SME record labels making up the 4th category. In 2017, Sony owned 22.52% of the market share, Universal 25.12%, Warner 12.75%, and indies made up 39.62%. Such growth is partially due to digitalization in the music industry.

The affordances of information technology and digitalization also resulted in decreased recording and marketing budgets limiting the economic feasibility of music firms to invest in new artists towards developing original and innovative musical works. Decreased profits and increased competition posed additional opportunities challenges to musician entrepreneurs alike in their attempt to manage costs and generate profits by marketing highly desirable products that few are willing to pay for (Peltoniemi, 2015; Hesmondhalgh, 2002; Throsby, 2001).

1.2 Digitalization in the Music Industry

Resulting from ongoing digital disruption in the music industry supply chain, music artists have become increasingly drawn towards entrepreneurial behaviors acting as independent business units with their artistic identity serving as an business venture that can be marketed online through social media with musical creations delivered to listeners through digital distribution (Davis, 2014). This type of “defection” was previously only possible to very powerful and wealthy groups such as The Beatles with their formation of Apple Corp. in 1967 (Theberge, 1997). The literature now points to an increase in independent self-managed music artists in the music industry due to decreased barriers to entry from the digitalization of supply chain elements such as recording, distribution, and marketing platforms (Schwetter, 2018). While the impact of individual independent musicians is low, the aggregate effect constitutes a large share of the market posing a competitive threat to industry giants such as music industry firms and record labels.

Schumpeterian “destructive” innovation in the creative industries is yet again serving as a catalyst for social change challenging the status quo, breaking social norms, and advancing public perceptions of culture and value along the way (Malerba, Franko, and Luigi Orsenigo, 1995). For the fortuitous cultural entrepreneur, the phenomenon of creative works achieving commercial success and reaching mass audiences can result in astronomical socio-economic returns such as fame, wealth, and social political power (Sahut, 2019). The literature, however, suggests a stark dichotomy between the artistic and business worlds that musicians inhabit. Consider the following: To earn a minimum wage of \$1,260/month musicians require: 1,093,750 Spotify plays, 4,500,000 YouTube views, 11,364 Amazon/iTunes downloads, 3,871 retail CDs sold, or 105 self-made CDs at \$12 (Tschmuck, 2016).

1.2.2 Streaming Platforms

Spotify has been touted as driving an ongoing transformation of media through its unique business model which consists of an automated online aggregation system which bundles data from consumers, cultural producers (music firms, artists, musicians etc.), and advertisers allowing for low costs billing with access to a cornucopia of music content and most recently podcasts (Vonderau, 2019). Spotify's features include large scale, low latency, audio on demand through peer-to-peer protocols, and client-server access to a library of over 8 million tracks and growing (Krietz and Nimela, 2019). These digital features allowed the multisided platform to grow at scale while being profitable through subscription models thus overcoming a central challenge facing free user platforms. The platform accomplishes growth and profitability by serving two markets (advertisers and music consumers) with the larger base of music consumers providing advantages to advertisers, that then in turn are able to help Spotify provide "free" audio content to listeners while decreasing the per-unit marginal cost of music (Towse, 2017 and 2013). In 2017 Spotify was valued at 13 billion and has since been credited with curbing online piracy and unauthorized file sharing, thereby saving the music industry (Ellis-Peterson, 2016).

Yet the digitalization of music distribution through platforms such as Spotify is also contended to have failed at delivering on their original promise to democratize the music industry. In 2009, Spotify's CEO Daniel Ek quoted, "From the very beginning, our vision was to offer a legal music service, as good or better than the pirate sites, giving users access to all music in the world, for free" (Huldschiner, 2009). Interestingly, the founders of Spotify do not stem from a music background, but one rooted in advertisement technology (Fleischer, 2021). The founders original aim was to distribute media that could attract many users and sell the attention of users to advertisers. In the 2007 patent, Spotify specifies, "Media here may represent any kind

of digital content, such as music, video, films, or images” (Fleisher, 2021). The notion of “free but legal” was discarded in favor of subscriptions that offer ad-free listening, playlist curation, and algorithmic recommendations of “new music” in the same genre as those listened to by users facilitating the discovery processes for musicians and consumers alike. In more recent years, Spotify has come under criticism for inefficient royalty tracking with allegations that the platform leverages revenue streams it does not pay out to independent music artist due to complexities in copyright tracking and music publishing administration. Meanwhile, attempts to move into other cultural sectors such as books or movies have failed (Huldschiner, 2009).

Irrespective of outcomes, Spotify is a prime example of digital innovation enabling higher numbers of musician entrepreneurs to distribute and monetize their work while increasing the likelihood of finding interested market segments through playlist placement and recommendations to listeners. New music is a particularly valuable commodity in the music business as uploading new songs or albums allows artists to pitch their top songs to playlist curators and obtain exposure akin to that of radio airplay. Theoretically, such digital resources provide musicians with a viable avenue for obtaining plays, amassing followers, and securing economic rents in the form of royalties and streaming revenue. In an analysis of published recording industry numbers, an Austrian music industry study exposed a broad divide in terms of economic returns for signed artists affiliated with a record label music firms as compared to entrepreneurial music artists working independently (Peltz, 2011) . The overall music related income per year per artist in the United States was found to be \$25,806 for signed artists and \$2,197 for musician entrepreneurs. The competition was also found to be higher for independents with over 3,050,000 music entrepreneurs in the open market as compared to the 620,000 signed artists working with music industry record labels. Both groups had the same

average amount of songs released per year (12); however, musician entrepreneurs produced 36,600,00 songs versus signed artist who produced 7,378,000. In total, signed artists generated \$16 billion in revenue while musician entrepreneurs generated \$6.7 billion (Pletz, 2011).

Evidently, creative individuals such as musicians stand to benefit from technological disruptions such as those spurred on by Spotify in several ways on their journey to entrepreneurship (Johnson, 2022). Foremost, digital tools are now available which can help musicians create better music ranging from recording software and process innovations such as autotune, to digital instruments such as midi keyboards that can be used to compose music electronically “in the box” (i.e., in the computer) and later set it to the timber of specific instruments or sounds (Leyshon, 2001; Negus, 2019). Second, digital innovations help musicians overcome their fear or burden of business operations and may eliminate resistance to entrepreneurial thought. For instance, Spotify, Twitter, and Instagram enable musician entrepreneurs to share their music with minimal technical skills and reduced mental effort (Alhabash, 2017; Dinis, 2020; Giebelhausen, 2015).

In other ways, digitalization also empowers musicians to provide services and purchases services (contracting) from other creatives using platforms such as Fiverr where creatives offer competitive rates for participation in music projects ranging from mixing, mastering, digital design, video editing, and songwriting aspects (Green, 2018). These digital applications give rise to new ways of conceptualizing work while increasing the scope of the gig economy, an apt description originally stemming from musicians’ propensity to act as independent contractors in the open market. Critics have contested that such secondary avenues for work are often the result of an inability to secure proper employment. A new challenge affronting musician entrepreneurs in the digital environment can be construed as an ideological encouragement by

platforms that “celebrate working yourself to death” (Tolentino, 2017). Qualitative studies of musician entrepreneurs validate this notion with independent artists reporting spending more time engaged with business affairs than their creative pursuits (JW Morris, 2014). This trade off puts into question the nature of digitalization and the value added for musicians participating in the so-called democratization of the music industry. Nonetheless, the decision to repeatedly engage in entrepreneurial activities essentially boils down to that of a feasibility analysis contextualized around a creative environment marked by high risk and high reward potentialities. One motivation for this dissertation is to elucidate on the meaning of success for music artists.

1.3 Musician Entrepreneurs: Paradoxes and Challenges

Business entrepreneurs traditionally lie at the nexus of individuals and opportunities (Shane and Venkataraman, 2000). While digitalization offers opportunities for musician entrepreneurs, it is up to the individual musician to decide whether to adopt digital tools in the development of their craft and career trajectory. “One such opportunity is a supposed greater possibility for artists to maintain self-sustaining careers without the need for record company backing; achieving this, however, requires high levels of drive and initiative and a supposedly more entrepreneurial mindset than was needed in the past” (Haynes & Marshall, 2018). On their journey to entrepreneurship, musicians are faced with two barriers. First, psychologically, musicians’ primary focus is on the music itself. Musicians are not as concerned about making money as they are with intrinsic motivations such as artistic self-expression. Second, musicians are not confident about their business skills. Previous research has identified that while music artists and groups engage in entrepreneurial activity (e.g., touring to promote new music, selling t-shirts, marketing online to maintain engagement), they do not necessarily regard themselves as entrepreneurs. More importantly, nor are such music actors concerned with core business

principles such as profit making (Beaven and Jerrad, 2012). Instead, artistic expression is seen as end itself with commercial success relegated to the interplay of extraordinary talent, sprinkles of luck, and the support of record labels with access to vast resources and networks (Helsley, 2011).

While, digitalization can potentially lower the psychological and business barriers musician entrepreneurs are faced with, competing narratives and lack of empirical support leave the phenomenon of music industry success open to speculation. Already our culture has been infused with myths of self-managed artist careers “going viral” overnight only to then be catapulted into the national spotlight where commercial success festers (Lou and Yan, 2019). Billie Eilish, Jelly Roll, The Black Keys, and Post-Malone are a few contemporary examples of this phenomenon at play but the list is seemingly endless and perpetually renewing. This paradox puts into question exactly what musician entrepreneur are, how they come to be, why they decide to embark in high risk-reward activities, and what kinds of outcomes can be expected from self-managed career versus more traditional routes (Schwetter, 2018). This sector of the creative industries provides an interesting and highly relevant context for entrepreneurial researchers to test the field’s tenants, assumptions, and predictive power in the context of digitalized music.

1.4 Statement of Problem

Changes brought on by the internet and advents of digital music have resulted in a shift across producer and consumer roles forcing musicians and firms alike to reconceptualize notions of sustainable careers and success in the digital landscape of the 21st century (Rogers, 2013). Foremost amongst the transformations in the industry is the emergence and preponderance of cultural entrepreneurs, or DIY ‘do-it-yourself’ music artists, who create, perform, and manage their music careers (Scott, 2012). Research points at the centrality of the musician as universal

in that music artists both create and communicate their cultural products to consumers thereby representing a chimera of both product and producer (Kubacki and Croft, 2004).

In the music sector, musical performances can be categorized as being the preserve of non-profits (classical music played by orchestras), major record label firms dominating the music industry (Universal, Sony, EMI, and BMG), and SMEs centered around specific artists, musicians, or bands (Buck and Burt, 2004). The vast majority of musical endeavors, over 90% by some estimates, are based on local music entrepreneurs who have been described as “business enterprises unto themselves” by researchers (Chang, 2004). Yet disparities in terms of performance outcomes have historically abounded in the music industry including unequal distributions of power, varying degrees of managerial control, opposing objectives and rewards (e.g., artistic integrity versus commercialization), and persuasions to comply with organizational and institutional standards (Casey, 1996). In the UK, government and authorities provide support for the arts in an effort to help artists focus on their work; however, financial austerity has instead resulted in fiduciary obligations to compromise creative ideals to survive as a “starving artist.” For a period of time, the life of local musicians was espoused to be, borrowing words from the American philosopher Thomas Hobbes, “nasty, brutish, and short” (Hobbes, 1651).

The music literature increasingly signals digitalization and e-commerce as providing multiple advantages for the musical arts including the ability for music artists to express themselves freely with sufficient opportunities to reach mass audiences and global markets, including niche sectors (Le Crocq, 2002). Yet there exist altering points of view on the matter with some researchers expressing concern over the economic market’s “debasement” of culture (Brown, 1995) or the broader contention that commerce and creativity are in a state of permanent conflict (Stratton, 1982). Whereas past research has asked whether the commercial environment

is good for music (Le Croq, 2002), the same can be asked of the digitalization phenomenon responsible for democratization in the music industry. Proponents for technologizing (the process of integrating technology into practice) argue that digitalization enhances the fidelity and convenience of available music (Payne 2000). Meanwhile, more critical skeptics suggest success relies on various factors lost in the modern music landscape such as songwriting quality, repertoire, artistry, and long-term artist development (Goldstuck, 2001). Without such standards, subpar cultural products engender the risk of subsuming music markets via “McDonaldization” as society readily acquiesces to the products of mass production (Ritzer, 1993).

The ability of digital technology to enable musician entrepreneurs to direct successful self-managed careers has been dubbed a myth by certain researchers (McLean et al., 2010) while at the same time being promulgated in an optimistic light by others, “Many artist’s careers, including recording, management, and social media are increasingly within the artist’s own reach” (Datta, Knox, and Bronnenberg, 2018). Similarly, Young and Collins (2010) conceives of future music artists as self-contained web-oriented businesses with greater entrepreneurial demands, portfolio careers (at times an entrepreneur at others an employee or coworker), an increasingly competitive environment, and other capitalist society pre-requisites for the status of modern music professional such as massive social media followings or influencer capabilities. The issues evidenced by these opponent streams of research centers around which conditions give birth to what consequences. A principal objective for this dissertation is thus to shed light on the factors associated with musician entrepreneurial success and the role of digitalization.

Many other paradoxes inhabit the music industry literature, particularly within the domain of musician entrepreneurs where distinctions abound regarding artistically driven and business-oriented behaviors. The business vs. art dichotomy is a recurring theme in the creative

industries and music entrepreneurship literature where qualitative interviews reveal a mismatch between the self-reported narratives by artists and narratives held by business scholars. For instance, artists understand music as identity and a way of life, as opposed to a source of income or employment (Kubacki and Croft, 2004). In a study of UK and Polish music artist, musicians were found to be characterized by a rejection for business labels superimposed on their musical activities. These musicians instead conceptualized their function as that of creators preferring to leave business aspects to managers and marketers. Such tensions may arise from aspects of modern market society which renders economic value (money) the only value of meaning.

Meanwhile, promoters regarded themselves as more than just creators or performers preferring to be involved with the delivery of music to audiences and markets. Other inconsistencies likewise percolate around the music industry. Whereas Polish musicians construed themselves as professionals making a living from their musical activities, British musicians were instead satisfied with occupying full time day jobs while playing music as a past time. Such differences may be attributed to the economic structure for these two countries and international differences of culture. Yet in the final analysis of both groups, equally low levels of entrepreneurial potential were identified with the authors ultimately encouraging musicians to regard entrepreneurship and business courses as relevant to success (Kubacki and Croft, 2006).

A study of Finland professional musicians by Martilla (2012) exemplifies the cognitive dissonance that affronts music students interested in becoming performing professionals or freelance educators. Professional music was formally divided into classical music consisting of orchestras (typically run by self-employed shareholders), as well as non-classical musicians (e.g., pop, rock, jazz genres, etc.) acting as contractors (Halonen, 2009). Exiting their education, music students reported confusion as to how to organize finances and acquire payments for their

performances (Martilla, 2011). The research paper hence questions whether the modern environment is forcing musicians to become entrepreneurs or encouraging them towards it. From a lived experience framework (Cope, 2005), scholars also explored musician and entrepreneurial identity through original testimonies and re-storied accounts (Beaven and Jerrard, 2012). Findings suggest that participants struggle with the conception of being “real entrepreneurs” stemming from the fact that most musicians do not act in accordance with business principles instead exhibiting economically irrational behaviors such as organizing unprofitable events.

Music entrepreneur examples invoked by researchers have also been met with friction as being the antithesis of what it means to be a “true musician.” For instance, Simon Cowell a record executive and TV personality, was purported by musicians to be more of a businessman than a musician despite Simon Cowell’s involvement in the US and UK music industry as a judge on contests such as Pop Idol, X-Factor, and America’s Got Talent. The increasing separation between conceptions of musicians versus entrepreneurs has been attributed to scholarly forcing of the musician-entrepreneur phenomenon to fit econometric models. A term such as “accidental entrepreneurs” may be more adequate descriptor (Ollerenshaw and Creswell, 2002), despite the fact that musicians are voluntarily juggling more work, shouldering more of the financial risks, and are increasingly tasked with more managerial duties (Azzelini, 2018). This feature of the modern music industry may be expected when the only remaining source of agency left to individuals in a market society becomes entrepreneurship. The taken for granted cultural assumption centers around the Schumpeterian myth of a successful and powerful entrepreneur armed with the ideological framing of creative labor underscoring autonomy. To such an extent, Pierre Bourdieu (1983, 1985, 1993) adds that economic and artistic concerns provide a basis for status and value distinction in the “fields of cultural production.”

Contradictions in the literature advance fundamental questions regarding the nature of modern music entrepreneurs. While technology has ushered in the era of the musician entrepreneur as a free agent in control of their creative output and cultural destiny, data from the Artist Revenue Streams project indicate that musician entrepreneurs continue to take on more task and responsibilities with some donning as many as 7 different roles ranging from performers, audio technician, ghost writer, session musician, event organizer, teacher/tutor, etc., to sustain their fledgling careers in the fine arts (Thompson, 2013). Musicians may be highly competent in one or several categories, but seldom all. Other research streams point at the increasing demand on musician entrepreneurs from a social media standpoint (Marwick and Boyd, 2011). According to social media studies, fans place increasing pressure on musicians to post content, interact, and involve consumers as project co-creators in exchange for continued support including crowdfunding participation or subscription-based patronage (Morris, 2013). European artist Imogen Heap recounts, “About 5% of my time goes to actually making music, sadly.” The chronology brings the timeline to the current state of the music industry’s “gig economy” where reluctant musician entrepreneurs juggle increasing needs for business and commercial dimensions in their line of work while simultaneously struggling to balance their artistic and creative prerogatives (Haynes and Marshall, 2016).

Musicians and entrepreneurship continues to persist as complementary facets of the same cultural coin (Karker, 2013). Various terms have been used to describe the modern musician entrepreneur ranging from portmanteaus such as musicpreneur (music entrepreneur), producer-consumer, prosumer (professional consumer), artpreneur (artist entrepreneur), pro-am (professional amateur), contentpreneur (content entrepreneur), user entrepreneur, cultural worker, creative worker, and so on. Taxonomizing attempts have resulted in musician

entrepreneurs being constituted as either having or requiring a comprehensive set of artistic skills, creative capabilities, and business competencies (McRobbie, 1993). Moreover, musicians' self-management has come to circumspect all aspects of economic organization and marketing, including transition to digital production, marketing, and distribution—an effect termed digital mediamorphosis (Smudits, 2008). “We live in a time in which artists are being stampeded from one bad deal to another worse deal,” comments Schwetter (2018).

Conceptions of the creative entrepreneur as a social program have been deemed suspect by critical theorists (Bolden and Goslin, 2006) who conjecture business world demands and motivations as being imposed externally from the mechanistic arm of the culture industry as originally purported by Adorno (1951). Similarly, Bourdieu (1993) warned of the “illusio” which refers to a shared illusion taking place within an industry-specific social game where participants become accomplices by acting out rules, promulgating central beliefs, and motivating others to join through potential rewards. In reality, few succeed in obtaining record contracts or achieving the heights of success ascribed to celebrities, with the majority of musician entrepreneurs beholden to self-management, scant revenues with low margins, and limited audience reach.

Adorno advances an argument in 1947 relevant to this discourse. Adorno's critical writings on the Culture Industry reconceptualized Western ideas on pastimes and hobbies by stressing that, “Entertainment is the prolongation of work under late capitalism. It is sought by those who want to escape the mechanized labor process so that they can cope with it again.” Adorno claims that yearning for amusement after work reflects a desire to shut off our minds by being present physically but not intellectually, “The only escape from the work process in factory and office is through adaptation to it in leisure time. This is the inescapable sickness of all entertainment.”

According to Adorno's Dialectic of Enlightenment, the activities we engage in during our free time, such as musical hobbies, are pre-prescribed functions of consumption advanced by the culture industry (Adorno, 1947). A hobby like outdoor camping does not return the use-value of relaxation, but instead serves as a veiled vehicle of exchange experienced from consumeristic acts such as purchasing a tent or RV, such that passion pursuits become vacuous and devoid. Applying Adorno's perspective to congenial music industry factions, scholars must carefully examine whether artistic expression on digital platforms are genuine modes for democratized creativity, or if they instead represent a modern means by which the culture industries exert power and influence over society's patterns of consumption and capitalist markets. Just as the example of the camping enthusiast illustrates, musicians, instrumentalists, singers, songwriters and the like, must expend inordinate resources on the cultural artefacts of creation (Schwetter, 2018). Historically this included but was not limited to guitars, keyboards, microphones, sound systems, percussion, etc.; however, through digitalization, there is an extended plethora of purchasing options ranging from computerized hardware, emulation software, to digital instruments. Often, such musical products are not categorically exhaustive ("one and done"), instead leading users to purchase more and more music goods in never-ending pursuit. The acquisition of music gear becomes a requisite in order to sustain participation in the music industry's competitive landscape. Put another way, such patterns of behavior sustain the "illusio" and "habitus" of Bourdieu's cultural fields (1989).

It is with these insights from Adorno and Bourdieu that I return to the problem affronting modern musician entrepreneurs regarding outcomes in the music industry related to performance, financial returns, and reward fulfillment for the risks endeavored upon. I next shift the focus of this dissertation to the topic of performance predictability in the creative and cultural fields.

1.4.2 Inequality of Outcomes in the Music Industry

For music artists who successfully monetize their work by generating musical “hits,” there is a characteristically skewed distribution of rewards in terms of financial performance such that a minority of musicians perform exceptionally well while a majority aggregate at the low end of the distribution scale stacking up to 0 in terms of performance (Berg, 2022). One statistic points at 80 million songs available for download on the internet while 70 million get downloaded 0 times (Allison et al., 2015). This inequality of outcomes reflects a problem of commonality with creativity such that it is not enough to be creative, musician entrepreneurs must be more creative than others in the same competitive environment. Capacities to think creatively has been established by psychometric studies to be distributed normally across populations; however, creative output and associated performance outcomes are not normally distributed (Peterson, 2017). For the reluctant musician entrepreneur, this salient feature of the world points at factors beyond creativity in determining success and performance. To elucidate further, I turn to the economic perspective on Superstars offered by Sherwin Rosen (1981).

Superstars are defined as small factions of people in the creative industries who generate immense amounts of money and dominate activities in which they engage; whether such players be comedians, musicians, or writers (Rosen, 1981). The concentrations of output amongst few individuals with skewed distributions of income and large rewards at the top is a characteristic hallmark of Price’s Law and Pareto distributions, or the 80/20 rule. The Pareto principle effects interesting consequences on musician entrepreneurs and disparate realms of creative production. For example, five composers produce the music that occupies 50% of the classical repertoire: Bach, Beethoven, Brahms, Tchaikovsky, and Mozart. Of all the music that these 5 prolific composers wrote, 5% of their music occupies 50% of their writing that has achieved commercial

popularity (Peterson, 2017). Hence, most classical composers' work never obtains performance plays, and even amongst the elite, only a fraction of their music ever achieves critical success. This is a prime example of Price's law scaling and the Pareto principle at play which dates back to research in the 1960s from Derric De Soula Price. Price originally found that the same fraction of scientists in any given discipline produced half the output of research papers in that field; a phenomenon also known as the square root law (i.e., square root of the number of people in a given domain produce half the output). In part, this distributional peculiarity can be attributed to the commodification of culture and its subsequent separation from everyday moments. Instead of music being an integral part of people's everyday life and relations, it becomes something to be merely, passively, and repeatedly consumed: ergo, bubble gum pop for the masses.

In his paper concerning Superstars, Rosen specifies that the convexity of the equation for net revenue functions, $R(q)$ is a transformation of talent to distribution of rewards, with convexity implying stretched income distribution to the right tail compared to talent. As such, differences in talent are magnified into larger earning differences. In economic terms, the unequal distribution of earnings is sustained by imperfect substitution amongst the superstars. One implication here is that lesser talent is a poor substitute for greater talent as demand for quality increases such that, "Hearing a succession of mediocre singers does not add up to a single outstanding performance" (Rosen, 1981). Additionally, rendering musical products and services implies joint consumption on the part of society and the producers which does not increase in relation to the size of the market. The effort required to perform live in front of 1 person or 100, or selling 10 books versus 10,000 books, does not increase the cost of production associated with performing or writing. Rosen uses example of opera singers to illustrate this point.

Before high quality sound reproductions characteristic of the music industry's traditional recording outputs, members of society had to go to opera houses which accommodated a few hundred to a couple of thousand people. The very best opera singers could deliver performances equivalent to the theater's capacity, leaving opportunities for the 2nd, 3rd, and 30th best to travel to small towns and generate income as well. Yet, Rosen notes that when it was possible for the best opera singer to record their performance and distribute it, music consumers were met with a choice whether to listen to a 30th rate performer at a popular venue or put on a recording of the best singer on their music generating device (gramophone, record player, smartphone, etc.). Accordingly, the best opera singers commanded a greater share of the market (Loury, 2021). Technological changes thus permit the most talented to deliver their performance to larger audiences at net zero marginal costs leading to winner take all markets (Korinek, 2017). While there is nothing inherently wrong with better musicians being listen to more, a problem emerges when music becomes the exclusive venue of professionals and the institutions they serve.

Additional quality vectors have also been identified as compounding the inequality of outcomes. Markedly, cultural consumers do not purchase more than one copy of a given cultural good, nor do they typically acquire the same content twice (Rosen, 1985). Instead, consumers revisit works of the same creator(s) by purchasing additional content (other songs, movies, or books). As quality talent garners success, it also breeds resource cooperation from business interests for producing additional commercial creative works. Furthermore, individuals of superior talent and ability increasingly sell their services for higher prices while facing stronger incentives to produce at higher orders of magnitude to reap greater rewards. This virtuous cycle for Superstars can be vicious spiral to new entrants including aspiring musician entrepreneurs

who must compete with superstars unlocking economies of scale in their operations as less talented entrants saturate the music markets with mediocre or undifferentiated content.

Rosen explains that the phenomenon of Superstars also results in consumers having to make quantity/quality substitution judgements and collective decisions for choosing a single variety of cultural goods (in this case, a music artist). Ideally, the telescoping choice reflects one which can be consumed by all members of society as a type of public good with “mass tastes” (Rosen, 1985b). In this manner, pop music artists come to dominate music concerts, radio airplay, and record sales at the exclusion of the performance of musician entrepreneurs who may be equally talented or potentially more creative, but not as commercially viable resulting in market rejection and comparatively poor performance outcomes for the independent music artist. The phenomenon of Superstars and the Pareto Principle is not relegated to the music industry alone; the same is postulated to hold true across many other sectors including: sports, finance, and high-tech. Contemporary studies on the economics of superstars posit this ordering principle as a root cause for the spontaneous organization of metropolises where talent aggregates such as the best doctors, lawyers, and other professional workers (Korinek, 2017). Given the applicability of digital technologies to potentially help or hurt musician entrepreneurs under Rosen’s view, I advance the following research question.

RQ1 – Does digitalization of music industry supply chain elements ameliorate or exacerbate performance challenges music entrepreneurs face, and how?

1.5 Theoretical Foundation

Music entrepreneurs as reviewed thus far are a unique subset of individuals. Classical literature on entrepreneurship purports that enterprising individuals can be successful if they discover a profitable idea and employ their business skills diligently to exploit it for financial

returns. Music entrepreneurs as such can be “constructed as individuals with a comprehensive set of artistic/creative and business skills and qualifications” (McRobbie, 1998). Under such a view, to be successful music entrepreneurs must take on the role of generalists with balanced skills allowing them to navigate the terrains of both business and artistic worlds. In this dissertation, I apply Jacks of All Trades (JOAT) Theory to understand how the value afforded by businessmen and artists translate to variations in performance outcomes and musician’s perceptions of success (Lazear, 2001). Specifically, Jack of All Trades Theory indicates that there are multiple competencies which individuals develop in order to be successful entrepreneurs.

For musicians striving towards making a livelihood out of their creative endeavors, inherent competencies include those along artistic, musical, and creative dimensions. According to Lazear’s Theory of Balanced Skills, to function as a profitable entity entrepreneurs should also possess business competencies across a variety of business categories including: managerial, strategic, operational, organizing/marshalling, developmental, service quality, and performance. In this dissertation I thus take inventory of the kinds of competencies necessary for a productive and fruitful independent music career. The objective of this dissertation is thus to demystify the notion that the worlds of business and art are separate and consigned to different actors (such as managers or record label firms) to specialize upon. In place, this dissertation analyzes general competencies as sources of competitive advantages for musician entrepreneurs along with implications regarding the types of competencies important to different measures of success.

1.5.2 Theory of Balanced Skills

Contrary to the notion of the neo-classical entrepreneur as a highly specialized expert in a specific field, Lazear (2004) instead portrays entrepreneurs as multi-skilled individuals

sufficiently apt across a broad variety of competencies. Lazear's Jack of All Trades (JOAT) Theory, also known as the theory of balanced skillsets, specifies that entrepreneurs do not need to be endowed with complete skillsets to prevent their business ventures from failing (Lazear, 2003). Entrepreneurs endowed with basic talents are instead able to augment their skills; yet, the weakest developed skill constitutes a major limiting factor for success. The skills and competencies sufficient to run a sustainable business can be acquired through general knowledge investment strategies taking the form of working various jobs and holding diverse roles in the labor market. In contrast, working professionals who invest education and job experience into highly specific areas increasingly become specialists (Lazear, 2004). Accordingly, Lazear's theory establishes entrepreneurs as generalists with multiple competencies while those working for employers increasingly become specialists with funneling expertise. While a powerfully intuitive theory, academic research is left to inquire as to what resources are needed in contemporary market society to be able to acquire balanced skillsets. Who has access to competency enabling resources and who lacks them? Is there a significant explanation for such discrimination? And ultimately, how is performance affected? In this dissertation, I approach such questions using the lens of JOAT in the context of the modern music industry.

In the realm of music entrepreneurs, evidence from qualitative studies suggest that musicians take on different odd-jobs in order to support their musical endeavors (Kubacki and Croft, 2006). Along with their unique musical talents, the diversity of work experience amassed by taking on multiple roles in portfolio careers may imbue musicians with the competencies required for self-managed careers (Schwetter, 2018). Studies point to a disconnect between musicians' self-perceptions of entrepreneurial activities as well as a reticence towards business thinking over those of an artistic nature (Haynes and Marshall, 2016). Given that cultural

entrepreneurship efforts are earmarked by either a lack of economic success or a preponderance of it (Scott, 2012), it reasons that out of the total set of skills that a music entrepreneur should possess, business acumen may be one of the underdeveloped competencies limiting success.

Based on this conjecture, a tension in the literature warranting further exploration is identified: On the one hand, musician entrepreneurs' working lives provides opportunities to pick up business and artistic skills from their day-to-day job activities. But the preponderance of lackluster outcomes suggests that the musician's business skills may be not only be underdeveloped, but ideologically opposed to by this class of cultural entrepreneur. The paradox simultaneously puts into question Jack of All Trades' contention that deficient skills can be developed, while also prompting us to question other competencies music entrepreneurs may possess that supersede or "balance" such shortcomings (Lazear, 2005). Lazear stipulates, for instance, that entrepreneurial skills should be balanced enough for the focal impresario to hire specialists, bring together resources, and manage the talents of others. Musician entrepreneurs engage in such practices, particularly during the music recording process when they are tasked with contracting audio technicians to assist with audio engineering tasks such as Mastering, or organizing talent including other musicians to play, write, or translate specific compositions into the instrumental voicings and orchestrations (Goldstuck, 2001). Indeed, through the affordances of digitalization, many of these functional domains are within the musician's grasp. Yet, to run a business successfully, entrepreneurs must have knowledge of various business areas ranging from strategy, operations management, marketing, and accounting with "the weakest factor determining the overall success of the startup." While a modern musician entrepreneur may be able to record and release music through digital means, it is not obvious whether they can do so in a business efficient fashion or in an artistic manner consummate with critical acclaim.

Evidence supporting a balanced skill-mix was questioned by Silva 2006 who wrote that despite evidence supporting Lazear's theory (Wagner, 2003; Baumoll, 2004; Astebro, 2005), would-be entrepreneurs are more likely to "intentionally invest" in a heterogeneous role-mix as a function of innate ability belonging to actual roles versus the quantity of role exposure. The type of job exposures is quintessential and influences individual's decisions to opt for self-employment (Steutzer et al., 2012). Such scholars, indicate that dispositional factors such as innate talent or a "taste for variety" underlies the accumulation of competencies in what has been referred to as the Endowment Hypothesis (Silva, 2006). Musician entrepreneurs share a degree of overlap with both views and offer a novel case to assess the perspectives of Lazear and Silva.

One of the benefits of Jack of All Trades theory as applied to music entrepreneurs lies in that it helps explain why such individuals do not traditionally hazard out in their nascent musical efforts, but continue and persevere despite negative outcomes (lack of commercial success, poor reception of their works, low economic returns, etc.). Current research on Jack of All Trades theory empirically grounds the link between balanced skill sets and entrepreneurial outcomes by analyzing regression weights and developing associated indices evidencing the importance of balance (Astebro and Thompson, 2011; Hartog et al., 2010; Strohmeyer et.al, 2017). Studies such as these support the view that it is not the level of any single skill that matters, but the balance of skills in a broader portfolio of skills (Backes-Gellner and Moog, 2008). Likewise, while human capital, typically measured as personal network size (Coleman, 1990; Glaser, Laibson, and Sacerdote, 2002; Davidsson and Honig, 2003), is the most accessible and used resource by nascent entrepreneurs, through a series of experiments Steutzer (2012) demonstrated that venture creation and success is uniquely a function of skill sets and competencies.

Applications of JOAT theory to Network size and performance carry the implication that social media followings are not as important to new venture success, which beckons the question, “Are You Listening?” Applied to musician entrepreneurs, such findings imply that knowing the “right people” (relationship or network competencies), or having robust social media networks (weak vs. strong ties, etc.) alone is insufficient. The obfuscation of this salient finding implies that there’s more to creators who achieve social media influencer success than society ascribes credit for based on the observables of their content. The equivalent may hold true for the music artist romantically conceptualized as a creative erratic or hyper-career-focused music mogul. Instead, musician entrepreneurs might represent a different class of entrepreneurial profiles which this dissertation aims to investigate. By exploring the competencies of musicians, this investigation begins the typological mapping of a novel class of underexplored entrepreneur.

Yet another interesting and paradoxical finding derived from Jack of All Trades research lies in that a desire for stronger financial standing, defined as a motivation to achieve “maximum lifetime income,” promotes entrepreneurial behaviors (Blanchflower and Oswald, 1990). This relationship warrants a reassessment of how job status (hourly/salary, full-time/part-time, etc.) and disposable income levels affect music entrepreneurs and career outcomes (Kurczewska et al., 2019). There is a limited body of literature detailing hybrid entrepreneurs in the context of Lazear’s theory of balanced skills which yields insight on the matter. Hybrid entrepreneurship entails a mix of self-employment and salaried employment (Folta et al., 2012) enabling people to realize entrepreneurial potential while enjoying limited financial risk through wages offered by an employer (Gruenert, 1999). As a result of gainful employment, hybrid entrepreneurs including those found in the music industry have a decreased risk for hazardous exit (Raffiee and Fent, 2014). Pertaining to Jack of All Trades theory, studies have shown that while the

probability of becoming a hybrid entrepreneur increases with broader professional experiences, it is also diminished as the diversity and level of education increases (Kurczewska et al., 2019).

Findings from Schultz et al. (2017) reveal that being a part-time hybrid entrepreneur results in higher earning potential with the parent employer(s). Hybrid entrepreneurship in this regard is observed as a two-part process during which the decision is made whether to 1) Engage in a startup, or 2) Whether to leave salaried employment to become full entrepreneurs (Thorgren et al., 2016). Contrary to Jack of All Trades theory, hybrid entrepreneurs do not follow Lazear's logical conclusions as hybrids divest time between their owned business and the employers. Due to time constraints, hybrids might only acquire experiences and competencies highly specific to their wage job while forgoing the accumulation of general knowledge possible elsewhere. For music entrepreneurs dealing with increasing complexities, this arrangement poses a grave threat.

Having a full-time salaried job entails serious risk for the aspiring musician entrepreneur who may have financial means and employment experience opportunities to acquire diverse competencies, but nonetheless fails to capitalize on their entrepreneurial potential due to preoccupations and an inclination towards a form of specialization that hybrid entrepreneurship accelerates (Kurczewska et al., 2019). Such a complexity puts into question whether having the status of hybrid music entrepreneurs delimits the realization of successfully self-managed careers in the music industry. In such a case, additional jobs and diversity of education would serve more so as a hindrance than a facilitator for entrepreneurial actions.

Based on these views and perspectives, I advance one of this study's primary research questions bringing into focus the types and levels of competencies sufficient or necessary for a music entrepreneur to attain positive outcomes. Similarly, this dissertation will investigate

whether such skills are interchangeable, substitutable, or complimentary, and whether there are non-negotiable competencies demanding emphasis (Helsley, 2011). Specifically, this dissertation advances that musician entrepreneurs require business competencies and music competencies.

RQ2 – What competencies do music entrepreneurs require to lead self-managed careers and to what degree to competencies determine performance outcomes?

1.6 Investigative Framework

To summarize the cultural phenomenon of musician entrepreneur emergence in the modern music industry and address the biding question of what competencies musician entrepreneurs possess or should develop as part of investment strategies, I taxonomize findings in a 2x2 framework based on Lazear’s Jack of All Trades theory. Finally, this dissertation aims to predict different kinds of performance outcomes associated with success for the musician entrepreneur. Given the embeddedness of these relationships in an environment bustling with use of digitalization in winner take all markets, this dissertation will examine the moderating effects of digital acceptance, a proxy for digitalization, across the 4 competencies groupings illustrated.

		Business Competencies	
		Low	High
Music Competencies	High	Music Artist Specialist	Music Entrepreneur Generalist
	Low	Music Amateur Hobbyst	Music Manager Specialist

Figure 1: Music Industry Competency Framework

CHAPTER II

LITERATURE REVIEW

“Artist today are pretty much by definition music entrepreneurs and owner operated companies, building their businesses and their brands.” – Paul Pacifio, CEO A.I.M.

“The show-biz recipe for rock success is sufficient talent, efficient management, and an enterprising record company.” - Simon Frith

2.1 Entrepreneurship and the Music Industry

The Culture Creation Industries (CCI) encapsulate a vast array of business sectors ranging from recorded music, printed literature, and cinema film to couture fashion, culinary arts, and digital gaming. The latest report from UNESCO accounts for 11 cultural sectors across 6 continents and estimates the culture creation industry as generating revenue streams upwards of \$2.250 trillion annually. Further, the CCI accounts for 3% of world's GDP while employing over 1% of the world's active population, or 29.5 million people. An examination of the world around us highlights a wellspring of cultural beatitudes that abound across generational, socioeconomic, and intellectual divisions. To better understand the complexity surrounding arts entrepreneurship, the cultural creation industries, and their environmental interdependencies, I outline the various components associated with the music industry business model and supply chain which has songwriting as its basic input and music formatted for cultural consumption as its final output.

2.2 Music Industry Business Model

Upstream of the music industry supply chain are artists who engage in the craft of songwriting (Lorenz and Frederiksen, 2005). The music industry in the context of the musician entrepreneurs is shaped by the content innovation inherent to each individual composition that is written, performed, and captured onto a medium by artists and musicians (Hirsch, 2019). The music that songwriters and producers create constitute creative inputs transformed by technologies in recording studios such as microphones, amplifiers, compressors, and equalizers which serve in the manufacturing of songs or albums offered in the music market (Caves 2000).

Musician entrepreneurs and music producers partake in the composition of original or covered works of music including scoring of instrumentation, writing of lyrical content, and enacting the performance captured on a recorded medium. Primarily, musicians bear the responsibility of imbuing innovation into their creations as novel songs have the potential to become popular commercial hits amassing revenue from sales, licensing, and royalty plays (Koh, Hann, and Raghunathan, 2019). Alternatively, highly unique stylings and original works of music may result in the generation of new musical genres birthing a stream of innovative music that can become the focal entertainment point for new movements in society and culture.

To reach major audiences and markets, musicians require the support of record labels. There exists an overabundance of music groups and music artists in the open market. While some musicians are signed to major record label firms and can be considered specialized music workers, others act as independent self-managed contractors and are conceived of as musician entrepreneurs. In the traditional music industry supply chain, record labels hire talent agents and scouts who contract or sign musical acts that have the potential to provide a competitive

advantage in the music markets. Desirable music acts typically have a pre-existing fanbase, a lucrative performance history, a characteristic musical aesthetic (“a signature sound”), or a “hit” song with sufficient consumer demand to be considered for contracting (Clemons, Gu, and Lang, 2002). Once signed, record label firms render services to music artists such as access to talent and booking agencies, recording studios, music instruments, performance gear, studio musicians, recording technicians, and producers to release creative works to music markets.

Record labels provide various services intended to increase social capital (Schreiber and Rieple, 2018) including media spotlight through television appearances on popular shows, radio air play time, music videos, and live audience exposure through booking of live performances with high profile national touring acts. Record labels also engage in copyrights management. Essentially, the business model involves record labels providing the coordination activities described in exchange for ownership of composition copyrights whereby artists receive a percentage of the royalty payments that record labels generate. Estimates figure that for every \$19 spent by a consumer on musical products, the artist generally nets \$1.33. Resultingly, record firm contract deals have evolved to a 360-degree model permitting record labels to extract revenues from all of their signed artist’s music activity including concerts, appearances, merchandising, and digital goods. Moreover, music artist expenses are leveraged as debts which the artist must pay back to the record company through what some have equated to indentured servitude (Scott, 1999). This new music industry business model promotes the extortion of contracted musicians while exploiting the authorship rights of creators who are left with no intellectual property recourse. I next overview the body of literature concerning Intellectual Property as sources of capital and economic rents, but which also hold the potential to generate revenue streams for musician entrepreneurs able to independently capitalize their creative works.

2.3 Intellectual Property

At the turn of the 20th century, newly invented media forms such as phonographs and moving pictures prompted an international awareness on the copyright management of intellectual property being created by recording companies, film studios, and broadcasting stations (Bishop, 2005). In 1886, the Berne Convention for the Protection of Literary and Artistic Works initiated copyright reform by focusing on the commercial interests of composers and creators (Henn, 1953). Nine countries originally agreed to the conditions of the Berne text. Remaining active in these endeavors throughout the 1930s, in 1928 the Berne convention in Rome helped bring the subject of Intellectual Property Rights (IPR) to international discourse by extending the notion of an author's "moral right" to their creative works (Hansen, 1996).

There are two major IPR systems: The Anglo-American "economic" system and the French Continental "author's rights" system with the latter reflecting an international tradition of upholding "moral rights" based on deeply rooted cultural beliefs (Hansen, 1996). On a cultural-cognitive level, the agreed upon policies translated to a moral expectation for the creative works of artists and scientists to be protected. This is highlighted by text in the Universal Copyright Convention of 1952 which states, "Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author" (Henn, 1953). The United States became involved in the Berne conventions from a global moral leadership purview as protecting copyrights was considered "simply the right thing for a great nation to do" by many politicians and government officials (Nimmer, 1992).

In 1948, the Brussell's convention extended the scope of Berne to include television while the 1971 convention introduced concepts of licensing and exemptions for developing

nations. In the United States, the Copyright Act of 1976 was passed by bipartisan legislation and established the doctrine of fair use extending copyright protections to accommodate the technological advances occurring in the fields of science and engineering (Dinwoodie, 2004). A subsequent wave of copyright efforts arose during the 1980's with U.S. computer software and the emergence of the internet spurring on international discussion concerning copyright protection and government intervention in the global trade of film, music, and audio visual (AV) programming. Consequently, today intellectual property is defined by 4 broad categories including: Trade Secrets, Trademarks, Copyrights, and Patents.

2.3.2 Impact of Digitalization on Intellectual Property

With technological breakthroughs in the 21st century, digital innovations such as peer to peer sharing resulted in increased music piracy placing constraints on the value of cultural creation industry portfolio holdings. Piracy of cultural goods such as music, books, and movies effected decreased revenue streams, curtailed industry growth, and rendered classic business models obsolete. Despite worldwide adoption of intellectual property right protections by various nations, the efficacy of protections remained a poor means by which to protect intellectual property including music copyrights. Powerful multinational enterprises (MNEs) have consistently been at the forefront of global reform lobbying national governments and expending resources in the war on Intellectual Property Rights (Grossman, 2004). Through mergers and acquisitions occurring between 1930 and 2010, media conglomerates consolidated internationally diverse music firms and record labels into multinational oligopolies dubbed the Big 4: Universal Music Group, Sony BMP, Warner Music Group, and EMI (Bishop, 2005). These record industry titans have operations in multiple countries lobbying government and regulatory agencies alike towards curtailing piracy through IPR enforcement (Hipp, 2009).

Despite intense political and international pressures, international property rights management continues to be a complex topic for international firms who must be cautious of intellectual property theft than can undermine firm performance by impacting multiple revenue streams including illegal digital downloads, physical bootlegs, and circumvented licensing from “cracked” software (Newby, 1999). In the year 2000, the Dispute Settlement Body of the WTO issued its first report concerning TRIPS violations for copyright provisions. The international copyright community found weaker impositions than originally anticipated reflecting the old adage that the dog barks but it does not bite (Dinwoodie, 2001).

One of the world most nefarious promulgators of intellectual property violations illustrates the scale of intellectual property rights violation on the international world stage. The Pirate Bay is a Swedish based firm hosting the world’s largest BitTorrent tracker (Li, 2009). BitTorrent technology allows a plethora of online users to simultaneously download and upload bits of files in “data swarm” configurations of pooled resources that allow most any file type ranging from an obscure book, software application, newly released film, or discography of an entire artist’s career to be instantly downloaded. There is no one server from which the data is downloaded as user’s personal computers function as servers hosting data that essentially decentralizes piracy by placing it in a vast online global network. This practice puts into frame the increasing complexity of digital rights management as in the 20th century piracy meant replication of music or movies with tape decks and disc writers (Dinwoodie, 2004).

Anti-piracy efforts did not halt the decline in physical music sales which lowered from 15,00 million in 1999 to 11,0000 million in 2003 (RIAA, 2003). The outcomes of copyright policing activities on the global front did not result in intellectual property rights protection, but instead incited the genesis of radical political parties such as the Piratpartiet in Sweden who

believe that the purpose of the copyright system should be to protect the interest of consumers and promote culture (Li, 2009). This cultural-economic impasse left major music firms and independent musician entrepreneurs alike with scant recourse in addressing IPR violations.

In the music industry, as well as other culture industries such as literature and film, online piracy is a dominant force estimated to be at fault for declining sales and lost revenue (Helfer, 2004). However, despite the issues and challenges brought on by the digitalization of music files in the first decade of the 21st century, the global music markets are now experiencing unprecedented growth across both developed and developing nations. In contrast to years following the emergence of filesharing (when the global value dropped by 14%), Nielson data from 2013 highlights a turning point with digital revenues from streaming services up 32-34% for both the US and UK (Nielson, 2013; IFPI, 2013). Similarly, in 2014, developing countries in Latin America observed an unprecedented 7.3% increase in music revenues.

Globally, digital music sales increased by 4.3% as a result of smartphones and streaming platforms offering consumers legitimate means by which to access musical content digitally. Furthermore, economic impact studies conducted by the BSA/IDC have reported that a 10% decrease in worldwide piracy across 4 years would result in major economic benefits such as 1.5 million new jobs, \$64 billion in tax revenue, and \$400 billion in economic growth. (Hui and Png, 2005). Evidently both nation states and music industry MNEs stand to benefit from increased Intellectual Property Right vanguards—primarily because IP are high value rent generating resources and secondly because stronger IPR translate to institutional legitimacy that can help host countries enjoy the beatitudes of globalization such as foreign direct investment (FDI), information and knowledge sharing, and accelerated economic development (Paasi, 2010). For musician entrepreneurs, IP reforms on the international stage confer institutional

benefits that independents can take advantage of such as access to royalty tracking and payment systems overseen by music publishing firms such as ASCAP or BMI (Elkin-Koren, 2011).

Across digital streaming platforms, there is also an increased attempt to curb piracy and protect IP through the use of meta data tags dubbed international standard recording codecs (ISRC) embedded in works of art. These ISRC work as digital fingerprints which together with copyright detection algorithms allow platforms systems to flag content based on permission set by copyright holders. For example, there are several artist groups on YouTube that have been considered notorious blockers such as The Beatles, Led Zeppelin, and The Eagles. If a user utilizes one of these music artist's copyrighted material, the YouTube copyright infringement system will pick up on tags, cross reference databases for parameters established concerning fair use, monetization, and percentage of copyright use tolerated before takedown.

Some artist permit 100% allowance such that anyone can use the entirety of a song's content with no blocking. Other musical acts may set this at 100% unallowed which results in content being blocked by content moderation bots as the copyrighted material is being uploaded and published. Other music firms allow for copyright usage but stipulate requirements for any ad revenue generated from monetization to be funneled directly back to the original IP owner. Thus, there are many instances on streaming platforms such as YouTube where a video (such as Harlem Shake footage) will go viral amassing millions of views, but will generate no disbursements for the video creator as monetization revenue is instead paid out to the respective copyright owners. Often times the copyright owners are not the focal music artist or group, but the record label firms owning the copyrights with the actual composers and authors receiving pennies on the dollar. Alternatively, other music artists set low IP controls allowing users to freely use their content, potentially even monetizing from it, in a laissez faire manner. For musician

entrepreneurs operating in this space, the volatility of copyright protection is again a matter of high-risk high-reward. For example, YouTube musician personality Rick Beato creates educational videos showcasing the musical elements that make hit songs great as well as teaching music production techniques. While Rick Beato has been able to monetize his channel's popularity, he has also repeatedly posted videos expressing frustration for original content he creates which is copyright blocked due to IP claims on small segments of music in his videos.

Content platforms like YouTube presents an interesting case analysis as certain videos are not ubiquitously available across the world with users finding "We're Sorry This Content is Copyright Protected and Not Available in Your Country." While such restrictions may come from sophisticated bots that can flag content, others industry practices can be more discreet as teams of individuals are paid by MNE music firms to scourge YouTube for potential copyright claims that can then be manually flagged. In this manner, music artists like John Fogarty of Clearance Clearwater Revival have found personal videos such as tutorials on how to play a popular guitar hook from a song he wrote, blocked by the record label owning the copyright. Such issues put into question the ethics of digital rights and the value of digitalization to artists.

The argument that IPR advances innovation and cultural growth is also put into debate by music conglomerates which promote international pop superstars with the power to generate billions rather than investing in a higher quantity of diverse artists across different genres and styles (Perlmutter, 2002). Based on a review of Rosen (1981) and Pareto principle, strategic behaviors such as these validate how pop stars are resourced more heavily at the mutual expense of more non-commercial acts. Developing countries have long since argued that IPR protections from TRIPS favor Northern countries and impose unfair dependencies on MNEs whose main objective is to enter new markets where licensing fees stand to be made (Ollan, 1973). One

theme found in the literature recounts that the United States became involved with international intellectual property rights conventions only after large and powerful business interest in Hollywood came under threat from the illegal duplication made possible by the invention of VHS tape and the recordable VCR (Li, 2009). Ethics and morals do not seem to be driving global IPR initiatives and researchers are encouraged to pause and reassess whether the assumption that piracy is an external threat holds up in entrepreneurial context (Andersen, 2007).

Most recently in 2018, U.S. President Donald Trump strengthened copyright safeguards by signing the Music Modernization Act into law which regulates royalty payments from modern streaming and licensing music sharing platforms providing additional regulatory oversight on fiscal transactions in the music industry. This act signals a continuation of copyright protections efforts which is likely to persevere throughout the course of human history (Wilson and Stokes, 2005). Music as a commodity as such represents part and parcel of a larger communications and media conglomerate influencing copyright protections for the past 100 years by lobbying governments and countries to abide by and uphold protections for the legal owners of IP works.

While the international business literature has explored the topic of the impacts of piracy, intellectual property, and digitalization on the music industry, an underexplored area has emerged on a new innovation with the application of blockchain technology which address copyright issues while also creating horizons of opportunity for next generation music formats in the wake of the next wave of digital disruption (Stohrmeyer, 2017). Already there have been major strides made, mostly on the video gaming front, in the arena of Atmos spatial audio whose format simulates immersive 360-degree audio. Blockchain and AR/VR as such present innovative, novel, and as of yet unsaturated opportunities in the music industry for musician entrepreneurs to deliver their creative works in cutting edge ways.

Musician entrepreneurs taking advantage of blockchain technology may be able to sell immersive content using direct to consumer models with increased profit margins. Theories of entrepreneurship suggests music entrepreneurs would act upon opportunities as a function of their praxis of business competencies and the drive towards marketing their creations. Yet, music actors small and large alike have time and time again miss the beat on cycles of innovative disruption concordant with major shifts in cultural consumer behavior. The phenomenon of slow adoption rates in bustling tech sectors such as Atmos or Blockchain puts into focus the importance of understanding how musician entrepreneur competencies (e.g., opportunity identification, strategic planning, etc.) and digital adoption may relate to performance outcomes.

2.3.3 Intellectual Property Summary

For both music industry firms and musician entrepreneurs, intellectual property lies at the heart of a revenue generating business model. Artists and musicians exchange copyrights ownership for record contracts allowing them to reach bigger audiences through scalable productions of music albums, videos, and live performances. Vast catalogues of music copyrights allow music firms to capitalize on the massive followings that artists, musicians, and bands generate from their creative activities. Digitalization now provides consumers with greater access to music files at low to no costs, leading to strengthened copyright protections. However, digitalization has also provided a means for musician entrepreneurs to self-publish and digitally distribute music while retaining their 100% of their copyrights. For musician entrepreneurs, this paradigm shift reflects a decrease in technical and psychological barriers to entrepreneurial actions as digitization offers increased convenience and ease of use. As an example, to copyright songs there is no longer a need for litigation specialists or IP subject matter experts contracted by music firms. Instead, the copyright office of governments such as the United States provide

website portals where musicians can upload their song files and register copyrights under their names or artistic pseudonyms. Thus, sales of copyrighted goods such as vinyl records and royalties paid for music placement on commercials, radio, or streaming have a better chance of returning consummate financial returns which can benefit musician entrepreneurs careers (Schwetter, 2018). Having explored IP from a historical and business context, I next turn to the music supply and value chains that musician entrepreneurs are tasked with skillfully navigating.

2.4 Music Industry Value and Supply Chains

The music industry has record labels set up as the standard organizational business unit. To better understand the complexity surrounding musician entrepreneurs and their environmental interdependencies, I next outline various components associated with the music industry supply chain which has songwriting as its basic input and consumer formatted music as its final output.

2.4.2 Music Value Chain

The culture creation industries involve innovation and transformation of established cultural value influencing what is appropriate, accepted, desirable, and valuable in the marketplace. These industries and their respective markets, the most popular being music records, cinematic films, and literature books, operate at the intersection of business and culture where respective firms are charged with the process of creating value and creating markets where goods may be sold for their artistic merit to consumers able to enjoy non-utilitarian commodities on the basis of leisure and entertainment (Aldrich and Fiol, 1994). Cultural goods are therefore both the physical manifestation of human ideas and experiences and the products of intellectual and symbolic efforts of society. Such cultural artifacts connote significance and meaning beyond their material properties. For example, Michelangelo's Sistine Chapel representing

teleological ideologies has been heralded as a crowning achievement of Western culture. The same may be said for works such as Shakespeare's *Macbeth* or Beethoven's 9th Symphony.

To achieve commercial valuation, cultural goods such as songs or manuscripts, must undergo a process of social construction through entities termed intermediaries which contribute to the collective acceptance of these goods as possessing "worth" worthy of capitalistic exchange (Hyde, 2009). The value chain that ascribes such worth is termed the cultural value chain and involves three key players: Producers who sell artistic goods (such as record labels in the music industry or publishers in literature), intermediaries with no financial stake in the commodities but whose role is to independently appraise them (e.g., critics in newspapers, reviewers online, institution that confer awards, etc.), and the artists (musicians, writers, painters, etc.) who create the works of art and have a personally vested interest in self-expression, validation, and hopes to earn a livelihood from their creative abilities (Bourdieu, 1993). Markets evolve when these entities influence consumers to agree on the value of artistic commodities to facilitate exchange relationships. However, consensus is not always possible and there are various tensions that underlie the interactions between producers, intermediaries, and creators.

A foremost challenge for musician entrepreneurs seeking to commercialize new artistic content lies in inherent differences between the goals and objectives of players such as music entrepreneurs and the creative industries in which they are embedded; and which paradoxically is what imbues pioneering works with both high artistic and high commercial value. Notably, creators create without regard to consumer preferences instead driven by intangible internal desires to instantiate their artistic visions or creative ideas (Caves, 2000). Because artists as such do not cater to public demands and popular preferences, their cultural products and commodities do not immediately attract large audiences or social favor. At this juncture is where producers

who sell creative works enter the value chain often investing personal capital and founding firms with which to generate interest and build markets for their resident artists (Wadhwani and Khaire, 2014). Producers are able to accomplish this by networking and contracting intermediaries offering public opinions with the power to sway consumer interests and tastes.

Tensions between the worlds of art and business result from a collision between artist's purist pursuits and producer's profit pursuits which urge on commercial offerings that appeal to the general population (Zelzier, 2010). Ironically, most attempts to make marketable works of art result in critical intermediaries flagging these as derivative, unoriginal, uninspired, passé, or pastiche. Thus, artist and creators find themselves reluctant to succumb to the pressures of commercialization which demand a compromise of artistic vision with no guarantees of success of financial returns (Wilson, 2013).

Selling out for meager financial gain can nonetheless take place for a variety of reasons including changes in consumer tastes. This phenomenon is evidence by modern trends in social media which influence rap music artists whose prosaic storytelling focus has been ciphers consisting of complex internal rhyme schemes and double-entendres, to instead shift songwriting approaches towards 30 second musical hooks readily transmittable as viral memes (Johnson et al., 2022). Nonetheless, cultural producers are said to be driven by nonpecuniary motivations to effect societal impact working tirelessly to shape public perception through their business skills and marketing savvy. In the modern music industry, such efforts may involve promoting artist through radio and TV airplay, booking national tours where live performance can garner fanbases, or marketing campaigns such as queuing carefully selected intermediaries in niche magazines where cultural value can take root and propagate through society in an organic

manner. Past examples include the producer Rik Ruben who promoted the blend of rock and roll and hip hop by fostering collaborations between bands such as Aerosmith and Run D.M.C.

The culture creation literature makes important distinctions between creator firms and producer firms that emerge in the entrepreneurial activity following the decision to appropriate value and exploit cultural opportunities (English, 2005). Creator firms are those founded and operated by creators such as musician entrepreneurs who sell their own artwork. Producer firms are those who sell the artwork of portfolios of artists on their roster. While creator firms have limited strategic options, producer firms benefit from diversified portfolios of artist that have high commercial appeal generating profitable revenue streams and financial stability which can be invested into new pioneering artists whose original and innovative work offer cultural prestige in the greater institutional environment (Hyde, 2009).

For example, in the high art fashion couture industries, producer firms such as Dior or St. Laurent may have “pure artists” under their payroll that develop the kinds of exuberant fashion styles seen on runways and fashion shows (Khaire, 2017). In the music industry, the same may be said about studio “ghost” songwriters as opposed to mainstream facing performers. In both cases, truly original and unique creations lack mass appeal. Instead, these creations serve to reinforce the symbolic cultural capital of the producer firm as being one with high artistic values and hence socio-cultural authority. The legitimacy afforded by this societal perception helps producer firms sell generic clothing and apparel at higher prices than competitors while brand affiliation imparts social standing upon its consumers via cultural capital (Bourdieu, 1993).

The same phenomenon holds across various other culture industry markets including the music industry where record labels may sign a resident pop superstar outputting generic pop hits

but whose sales help fund investments in novel music artists which may prove to be of cultural and symbolic capital. As such, there is tremendous value in creativity, originality, and artistic ability. While the music industry possesses intimate knowledge of the necessity to serve both artistic and market needs, in this dissertation I explore whether musician entrepreneurs have similar competencies with which to navigate the nuanced world of the entertainment business.

2.4.3 Music Supply Chain

The music supply chain begins with the creation of musical works (songs and albums) by musicians. Record label firms, content producers, musician entrepreneurs, or music artist managers then contract with production facilities such as Mastering Houses to sonically optimize the audio stereo music mix to produce Master Recordings (Lorenzen and Frederiksen, 2005). Masters then go on to the manufacturing stage where master files are transferred to physical mediums such as vinyl records, tape cassettes, or compact disks housed in inventory warehouses. Alternatively, masters can also be converted to compressed high resolution electronic file formats appropriate for digital downloads or licensed streaming. These physical and digital outputs proceed in the supply chain moving on to music publishers who publish content and use distribution channels to move music products onto retailers including stores such as Walmart or BestBuy, e-commerce website such as Amazon or Barnes & Noble, and streaming platforms such as iTunes, Spotify, and Pandora (Kjus, 2016). The final component in the supply chain involves music consumers buying, downloading, or streaming the musical content created by music artists but managed by record labels (Lorenz and Frederiksen, 2005). With digitalization, music entrepreneurs are able to bypass many supply chain intermediaries in direct-to-consumer models made possible by new intermediaries dubbed artist aggregators; however emergent technologies such as blockchain offer the potential to bypass additional supply chain elements.

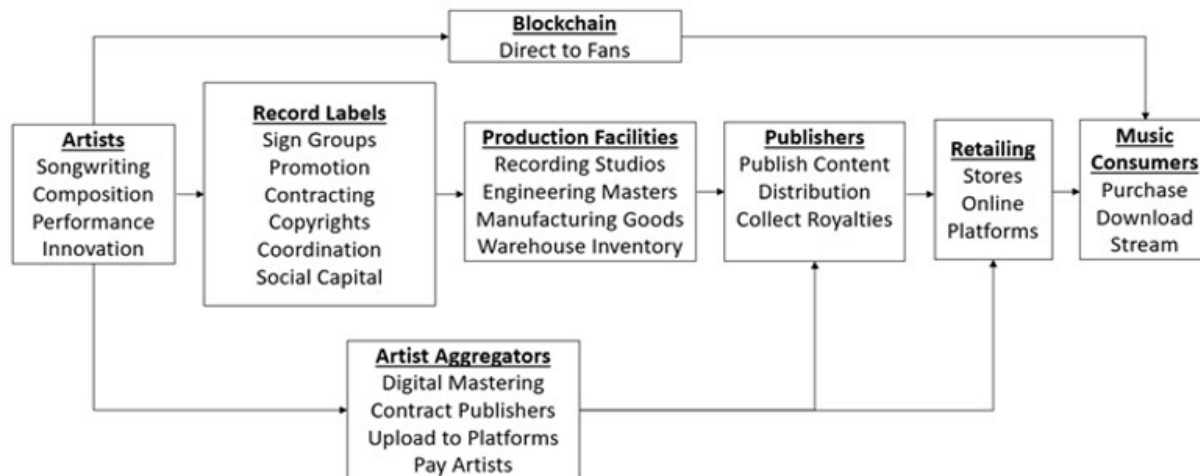


Figure 2: Music Industry Supply Chain Forms

There are various components in the music industry supply chain (Artists, Record Labels, Production Facilities, Publishers, Retailers, Consumers) along with multiple factors associated therein (artistic, entrepreneurial, and relational). Supply chain elements are often highly integrated with top performing record label firms owning multiple recording studios, manufacturing plants, publishing companies, and distribution channels (Clemons, Gu, and Lang, 2002). As an example, one of the top 3 record labels, Time-Warner Inc. has the division Time-Warner Entertainment which owns WEA Inc. who is divided into WEA Manufacturing and WEA Corp for distribution. Time Warner also owns the Ivy Hill Corp who provides record packaging and printing services. Warner Music Group is a subsidiary within Timer Warner Entertainment which has acquired independent record labels including Rhino Records, Elektra Entertainment, and Sire Records. Nested in this schema are also joint ventures with independent record labels such as SubPop, 143 Records, and Tommy Boy Music. There are also several strategic alliances and agreement that Time-Warner has formed with distribution outlets such as Alternative Distribution Alliance and other music companies such as Curb Records and Luaka

Bop. Evidently, there is a high degree of both vertical and horizontal integration ongoing with major record labels. In the context of musician entrepreneurs, the question arises as to how digitalization might aid entrepreneurs from being crowded out by the immense resources that conglomerate firms possess and effectively deploy. To that extent, a review of the literature finds that online education, online communities, and accessibility to digital tools help musicians better understand the institutional environment and engage with it (Klein, Meier, and Power, 2016).

Resulting from a high degree of vertical and horizontal integration, music industry population ecologies have become well established around United States cities such as New York, Nashville, Austin, and Los Angeles (Lorenz and Frederiksen, 2005). In these music metropolises, lowered transaction and coordination costs coupled with access to unique resources talent, have resulted in a wellspring of musical innovation, sustained competitive advantage, and increased performance. Music ecology conditions evidently effect musicians differently based on geographical disposition. Pertinent to our discussion regarding digitalization, I inquire whether technology helps musicians mitigate differences found between areas of high music industry resource concentration and regions low in cultural activity (i.e., economic deserts)?

While the features of modern-day music ecosystems in metropolises allow music entrepreneurs to establish portfolio careers, the distinction between hybrid entrepreneurs (those who work full time jobs) and those who work as hired specialists here becomes blurred. One group may be considered professional by virtue of making money exclusively from their music activities. Meanwhile, the other group may be construed as a semi-professional collecting only a portion of their total earnings from musical endeavors. This dichotomy urges this discussion to consider how the quality of life stacks up for musician entrepreneurs in bustling cities. A professional musician entrepreneur may struggle to make the equivalent of minimum wage,

while a semi-professional may make the majority share of their earnings from salaried jobs, which according to Jack of All Trades Theory, may also imbue them with skills necessary to become better entrepreneurs (Lazear, 2001). An investigable inquiry arises as to who is more successful in the world of independent musicians? Does having a day job, help or hurt and what can be learned about the types of day job hybrid music entrepreneurs take on. Extensively, what may be learned about musician entrepreneurs who come from wealthy families or privileged backgrounds and whether the advantages afforded by genealogy or geography carry over in terms of competency acquisition, or other extant exogenous expositional factors.

2.4.4 Summary of Music Value and Supply Chains

Digitalization in both the music value chain and supply chain offers music entrepreneurs the ability to bypass traditional intermediaries and gatekeepers such as producer firms, distributors, and even critics. On the value chain end, creators act as producers sharing in the responsibility for marketing cultural products. Meanwhile on the supply chain end, creator entrepreneurs can digitally distribute music to a multiplicity of streaming platforms using direct to consumer models tapping into worldwide audiences with substantiative market reach. Indeed, several music aggregators provide services which frontload music onto streaming platforms also offer distribution services for placing physical goods such as CDs and Vinyl in distribution centers such as those operated by Amazon. Equally relevant, digitalization of the music value and supply chain helps to promote new jobs and roles for musician entrepreneurs embedded in the gig economy offering liberation from the pull of music ecologies. Overall, the democratizing effects of digitalization place a greater responsibility on musician entrepreneurs to oversee and manage multiple aspects of the music production process. I next proceed to closer examine innovative disruptions, past and present, and associated implications for musician entrepreneurs.

2.5 One Hundred Years of Innovative Disruption

This culture creation industry is shaped by the content innovation inherent to each individual composition that is written, performed, and captured onto a medium (Hirsch, 2019). The music that songwriters and producers create serve as innovative inputs which are transformed by technologies in recording studios that are themselves subject to constant evolutionary change (Caves, 2000). The music industry is also subject to the technological innovation of formats, platforms, and delivery systems that bring content to consumers. Some notable paradigm shifts in music distribution have included the transition from broadcast radio, vinyl records, cassette and 8-track tapes, to compact discs, digital downloads, and most recently streaming services and licensed plays. Shifts in consumer preferences for new formats and crossover to new platforms result from competing demands along the dimensions of high quality, high convenience, and lowered costs. Quality was a notable key factor when considering the switch from AM radio to vinyl records as the principal listening medium with vinyl format still considered by many as the highest form of audio fidelity achievable (Peterson and Berger, 1975). During the 1970s, shifts in consumer demand towards portable consumer electronics resulted in the creation of cassette tapes from electronic industry giant Philips who saturated the market with stereo systems that included cassette decks (Sheperd, 2003). Philips later formed a joint venture with SONY giving birth to the Walkman which popularized portable media (Tschmuck, 2003). In the 1990s, compact discs, or CDs, resulted in a music industry boom as a new physical medium based on digital technology provided both high quality, portability, and convenience.

Through this period of innovative disruption in the music supply chain, the costs of music remained relatively stable with the manufacturing of music content in the form of vinyl, cassettes, or CDs being historically low cost with equivocal resource access across the industry

for production and manufacturing (Winston, 1998). Instead, it was the unique content created by artists that served as the differentiator promoting sales of one album over another (Acha, 2005).

With the proliferation of websites as highlighted by the dotcom bubble, and advances in broadband internet, high speed and reliable file transfers became readily available to online surfers (Sterne, 2012). Peer to Peer services such as Napster connected internet users facilitating the sharing of digital music files in mp3 format, a low-quality compressed audio file type small enough to transit across internet connections seamlessly (Tschmuck, 2003). This disruption marked the 1st major shift in the way the listeners consumed audio music. Whereas prior to the late 90s and early 2000s, music was consumed in collections of songs curated by artists, producers, and record labels, now consumers shifted tastes towards downloading individual tracks. Out of an typical album containing 12 songs, consumers were found to only be interested in the most popular 2 or 3 which could now be individually downloaded (Mulligan, 2015). According to scholars, the music industry was previously aware of mp3s, file transfer protocols, and consumer preference for singles, but did not capitalize on it for fear of undermining record sales. In consequence, the music industry as a whole experienced detrimental decreases in album sales due to online piracy as individuals were driven towards downloading tracks at low to no costs. A series of lawsuits and litigations measures were taken to prevent digital piracy, however efforts did not curtail user's new found preference for low-cost music (Bhattacharjee, 2003).

As more technological innovation spurred on from the wealth of online business being generated (Maxwell and Miller, 2012), firms started to devise new business models that legitimized the online sales of digital music (Hesmondhalgh and Meier, 2018). Digital downloads transitioned to licensed downloads with tech giants such as Apple leading the way using new platforms such as iTunes which offered access to large music libraries and databases

that had exhaustive content pooled from various music styles and genres (Tschmuck, 2003). While new music distribution platforms licensed entire albums, demand continued for specific songs and individual tracks; however, Apple's individual song costs were relatively high compared to the price points for downloading entire albums. Nevertheless, disruptive innovation continued amongst other firms interested in tapping into this music market gap.

Pandora in 2003 licensed music in playlists which had collections of songs and Spotify provided users with access to tracks with a premium for membership business model (Skog, Wimelius, and Sandberg 2018). The music industry formed strategic alliances with these new ventures, while other record labels and music artists such as Metallica engaged in lawsuits to combat revenue loss and declining album sales. While piracy was reduced by as much as 7% under some estimates, impact nonetheless affected record label firms and the music industry as a whole (Zenter, 2005). Many distribution platforms did not address the consumer demand for portability and convenience as users had to be connected to the internet in order to enjoy music or use specific file types such as AIFF with iTunes that were not compatible across electronic devices and media players.

During the late 2000s, there was a shift in consumer electronics towards mobile cellular phones using "smart" technology which ultimately giving rise to the App market (Anderson, 2014). This new market was capitalized by music distribution firms who began to use hierarchical information systems structures to extend platforms capabilities to be more dynamic taking advantage of the architecture developers were establishing. In turn, this tech resulted in another innovation in the music industry with licensed digital downloads evolving towards music streaming services. With music streaming platforms, users were able to stream either entire albums, individual tracks, or curated playlists (Hesmondhalgh and Meier, 2018). To advance

subscriber growth, music streaming platforms offer freemium subscription models providing access to music libraries with advertisements between songs. Meanwhile, paying for a premium account removes advertisements and provides access to features such as offline listening.

Alternate forms of innovation also took place as a result of the shift towards digital distribution. Primarily, artist and label aggregators such as CDBaby or DistroKid rose to prominence offering independent record labels and independent musician entrepreneurs the ability to bypass music industry intermediaries while facilitating market entry to a wide array of digital streaming platforms for either a one-time set up fee per release or a preestablished subscription cost for unlimited releases. Music aggregators too provide services linking musicians to publishers ensuring copyright and royalty agreements are maintained via basic low commitment contracting (Vaidhyanthan, 2001).

Music firm backed artists have access to additional aggregator tools such as being able to add lyrics and short videos to music uploaded. Such features fall outside standard service offerings provided to the majority of independent musicians resulting in a digital divide that evidences preferential treatment of some class of music artists over others bringing again into question assertions that streaming platforms represent examples of digital democratization in action. This skepticism is backed by the preponderance of major label artist in top playlists where the practice of “payola” or bribing for playlist placement remains much the same as it was during the days of FM radio DJs controlling the airwaves leading critical theorists to concede that despite technological advances and jubilant cries of democratization, the culture industry remains as insidious as ever. The figure below summarizes the major milestones in the music industry supply chain’s evolution.

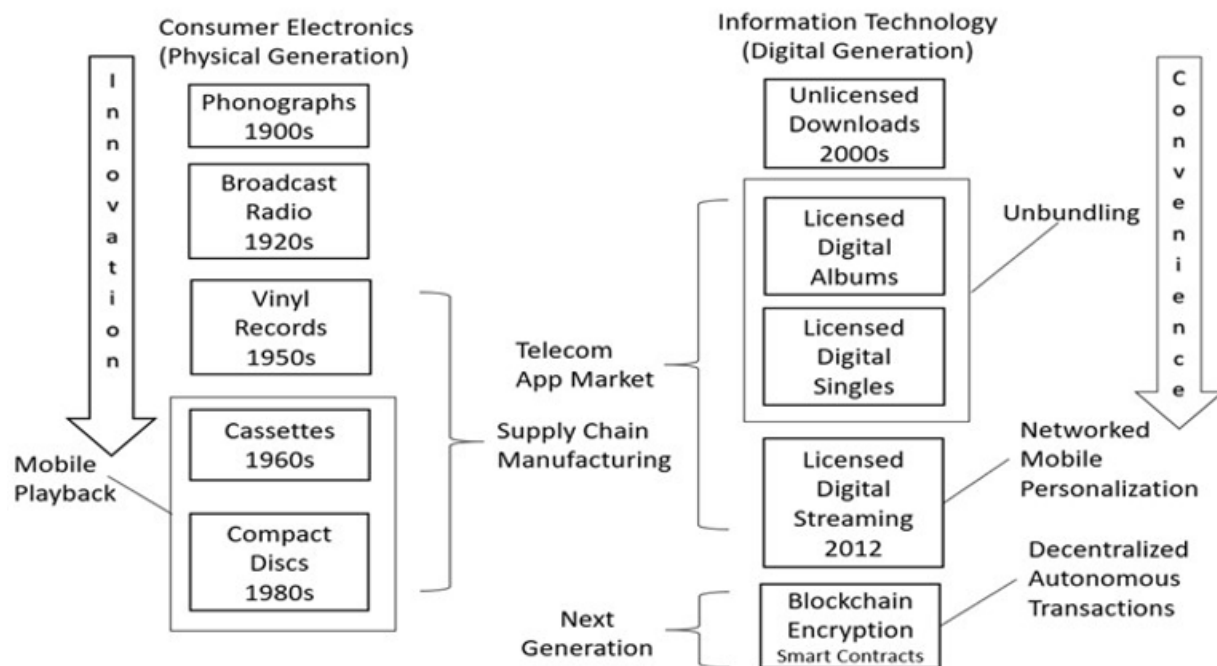


Figure 3: Music Industry Technological Evolution

There are multiple points of interdependency amongst record labels. Both from within the record label supply chain and outside of it in the broader music industry environment. Changes in music consumer tastes and preferences urge new content innovations, market forces resulting in innovative disruptions (most notably, the shift from consumer electronics to information technology) cause assets such as warehouses of physical records to become obsolete and vertically integrated portfolios to depreciate, and political regulations in the form of anti-trust laws curtail strategic actions while also criminalizing music piracy in protecting artist's copyrights (Lain, 2013; Marshal, 2013; Winseck, 2011). These vast interdependencies result in a dynamism that record labels have been responsive and proactive towards.

Nonetheless, shifts towards licensed streaming have rendered record labels and musician entrepreneurs handicapped in their ability to secure viable economic rents from streaming as royalty rates for music plays work out to revenue split of 70/30 between artists/copyright holders

and streaming platform companies such as Spotify. This amounts to \$.003 to \$.005 per stream on average, or approximately $\frac{1}{4}$ of a penny (Collopy, 2019). Scholarship finds that record labels increasingly generate revenue from back catalogues (reprinting rights for previously released records such as The Beatles digitally remastered series) to maintain their growth and profitability. Yet this strategy may prove to be a Potemkin of sorts as music markets become saturated with content from previous generations curtailing the development of new content innovations from emerging artists that may appeal to new audiences.

Music entrepreneurs have no such recourse and are, in turn, left to fend for themselves facing obstacles in the music industry including how to react in a turbulent environment where vital resources are at risk. Once again, business competencies such as opportunity identification and strategic planning percolate as potential antidotes which may help orient musician entrepreneurs' trajectories towards sustainable self-managed careers; yet empirical evidence remains underdeveloped in this area. Fast forward 20 years into the modern landscape where ownership of physical products have been substituted by digital access rights and it is evident that changes in the music industry have inexorably changed the way music business is conducted.

The shift from consumer electronics to information technology caused assets including warehouses of physical records to become partially obsolete while vertically integrated portfolios of supply chain elements depreciate in value. (Lain, 2013; Marshal, 2013; Winseck, 2011). Meanwhile, the technological core that record labels use to transform audio sources into commercial products incurs ongoing expenses in terms of maintenance, overhead, and upkeep costs. These cost implications have resulted in major studios closing down due to digital innovations as budgets are reduced from millions of dollars to thousands of dollars per album.

Consequently, there has been an reversal of expectations towards musician entrepreneurs hoping to sign with a major label, such that music artists are expected to provide fully recorded albums over to record label firms looking to save on cost and minimize risks (Karubian, 2008). This role reversal is in sharp contrast with the old music industry paradigm where music groups instead pitched demos of songs to later fully develop in high end studios with professional producers, engineers, world class instrumentalists, etc. Another insipid caveat may be found in the ability of record labels, who pay for and own the music created by artists, to shelf it and prevent it from being released due to falling short of commercial standards. This has caused a myriad of issues for signed artists who may fail in the music industry and instead opt to take the harder road of the music entrepreneur's path. For musician entrepreneurs, the net result of digital disruption has been an increase in opportunities with low prospects for performance success. Yet, this is the nature of high-risk high reward systems.

Under Porter's Structure Conduct Performance (SCP) paradigm, the 5-force model posits the level of threat in an industry as marked by threat of substitutes, threat of suppliers, threat of buyers, threats of new entry, and threat of rivalry. Given lowered barriers to entry and democratization of distribution networks, some scholars have concluded that the music industry is under non-negligible jeopardy from musician entrepreneurs who have emerged in the field as a type of David to the Goliath of the culture industry.

Another means by which music players are surviving in the age of digital disruption, is through process innovation that affords lower operating costs. Cost, defined as the fully accounted cost of manufacturing a product, directly determines the profit that can be generated and by extension the performance levels attainable in that industry. Musician entrepreneurs benefit from such cost reduction innovations. Altogether, increased competition from

independents constitutes a powerful force to be reckoned with analogous in competitive power and market share to the emergence of a major music conglomerate.

It could be argued that having independent artists try to introduce their music online may aid music corporations discover which artists “sell” without having to invest in finding or developing them; thus, the proliferation of music entrepreneurs may be just what the music industry needs to thrive in the 21st century. Having overviewed the nature of product innovations inherent to content and format, we next turn to the operations and process innovation literature which further elucidates how digitalization accelerate process innovations conferring benefits to music industry players managing environmental pressure to adapt.

2.5.2 Digital Innovation in the Value and Supply Chains

Firms undergo cycle periods where attempts are made at improving efficiency, increasing quality, lowering costs, or rendering new services (Baras, 1986). According to business researchers, there is a strategic choice involved in determining whether to focus on product or process innovation (Bonnano and Haworth, 1996). Both innovation forms are inextricably linked as processes variables are antecedents determining the strategic characteristics of products. Value added resulting from process innovation however can reduce the amount of time needed to produce a product or perform a service, increase the volume of product or services rendered within a specified time frame, or reduce the costs per product or service provided (Cummings, 1998). Implemented properly process innovation also holds the potential to increase quality (the ability to meet a customer’s expectations) which itself can lower future costs. Consequently, process innovation offers radical new approaches for technology to improve overall efficiencies, strengthen product competencies, and yield competitive advantages. Process innovation falls

within the purview of both music firms and music entrepreneurs. However, musician entrepreneurs benefit more from the adoption of digital innovation than music firms who already have vast access to human and technical resources; for example, movements in recordation from analog magnetic tape to digital analog workstations (DAWs) such as ProTools, conversion of outboard hardware digitalized into software based plugins, or even symphonic music scores played by digital MIDI programs as opposed to contracting a regional philharmonic orchestra. While digital resources are ubiquitous in the music industry, digitalization affords more utility and benefits to musician entrepreneurs rather than large music firms.

Process innovation may prove riskier than incremental improvements as process innovation operates along the three parameters of Quality, Cost, and Time which sometimes work against the achievement of each other (Cummings, 1993). In such a manner, achieving low cost may result in poor quality, focusing on decreasing time may increase cost, or focusing on quality may increase the length of time needed to manufacture a product impacting the volume of products that can be manufactured. The innovation literature stresses that in a competitive market, it is not acceptable to sacrifice any one parameter for another. Instead, the challenge of process innovation is to achieve a balance of all three much better than competitors are able to. Maxwell (1998) underscores the fact that there are minimum quality standards which must be met when innovating as quality is a barrier to innovation. Such quality standards are often the purview of music industry gatekeepers and independent critics (Weinstein, 2013).

Concerns over quality and the digitalization of music stems back to the 1990s when digital music files in the format of mp3s provided a convenient method by which to easily share music electronically. Mp3s can be transmitted thorough internet connections because of the popular format's relatively small file size which may range from 3-10 megabytes compared to

the standard CD .Wav file which can run upwards of 30 to 70 megabytes. The feat of file size reduction is achieved through audio compression processes that remove sample rate frames in the music essentially cutting the file into smaller sections that take up less room. A consequence of this parsing down is a decrease in the decibel output that drives speaker engines due to less information moving the air needed to produce sound waves; i.e., volume loss.

The proliferation of illegal piracy in the early 2000s directed attention to the qualitative differences between low resolution and hi-resolution files prompting ventures to commercialize lossless file formats retaining the original audio quality. Neil Young, a musician from the 1960s with a career spanning 50 years, ventured into the realm of technological entrepreneurship by offering the PONYO music player which promised highest quality streaming available, at a premium price point. However, Young's venture did not change the market or consumer preferences for convenience and low cost. More recently, platforms such as TIDAL have introduced Hi-Fi music streaming proclaiming to overcome the signal loss disadvantages of audio compression.

Similarly, with digitalization of recording processes there are extant concerns from professionals and consumers over the perceptual quality of the recording methodology used. Product reviews and A/B comparisons between analog hardware equipment and their digital software equivalents indicate that the hardware progenitor confers certain musical properties to the final sonic product such as "brightness" and "warmth" while software treatments have been described as sounding "cold" and "sterile." Modern advances in digital technology have been employed to circumvent these concerns such as capturing audio using higher sample rates (44.1 kHz vs 192 kHz) and most recently using hybrid "Unison" modeling technology to change voltage, impedance, and resistance current on the hardware running software plugins mimicking

the vintage analog gear of yesteryear. Whether or not digitalization affect perceptual quality variables, the utilization of digital resources is underway in the recorded music industry with digital adoption also uniform across professionals, entrepreneurs, and hobbyists. This prompts us to inquire whether music entrepreneurs produce different quality products as a consequence of digital goods employed. For that matter, does quality per-se bear significance to standard music listeners whose market choices reveal an indiscriminate stance on audio quality in favor of other attributes. Answers to such questions highlight a dynamism between losses and gains of a chief competitive advantage (industry level pro quality) which music industry giants have safeguarded and musicians aspired towards for decades. Next, I proceed to explore the relationships between process innovation and the impetus driving music industry players towards digital adoption.

In strategy, the role of operations is managing and reducing production cost so as to lower overall costs and help the enterprise become both competitive and profitable in the market. Performance is possible through a combination of operational and process strategy that involves considerations for resources inputs, labor cost, process cost, inventory cost, and quality management cost. Evidently, such demands imply requisites for managerial competencies in understanding business factors that drive performance in any given industry. Adam and Swamidass (1989) research show how patterns of strategy and process variables are vital to ensure overall performance. A systematic lack of understanding for operational strategy on the other hand may result in inefficiencies stemming from suboptimal considerations for cost, quality, dependability, or flexibility variables. This strategic link may help explain musician entrepreneurs' performance outcomes for those low in business acumen. Such musician entrepreneurs may produce lower quality work, despite being high in creative quality or in talent/originality, resulting in poor reception by the market.

Strategic research calls for productivity of inputs/outputs as a surrogate for cost when measuring performance adding that profitability is primarily driven by quality driven effects on prevention cost, appraisal cost, internal and external failure costs. Quality management involves the measurement and maintenance of quality and solutions to issues that may percolate as a byproduct of operational changes. Given compounding business demands on musician entrepreneurs and attractiveness of digital adoption, the resulting perceptible differences in quality may pan out differently for music entrepreneurs than music firms who are better equipped to offset and mitigate issues. While music firms command large resources, such as trained specialized professionals, what recourse do music entrepreneurs have in managing these complex considerations? Applying Jack of All Trades theory, I postulate that these activities fall within the scope of specific competencies: a trained musical ear to distinguish if musical products are “ready”, contracting with music industry players such as mastering engineers who specializing in audio isomorphism and setting the “proper sonics” ascribed to commercial music, or simply networking with social media followers and build markets and respond to their needs.

The digitalization of recording processes through digital audio workstations (DAWs) and software emulations plugins is aligned with the operational strategy detailed here as it greatly reduces multiple cost points. In terms of resource inputs, a mixing and mastering console desk can be thought of as a master controller with built in circuits, capacitors, and transformers allowing the engineer or producers to shape sounds imbuing texture, color, and depth to musical works. Additionally, such analog workstations have outputs and inputs that allow for the expansion of capabilities by routing signals to outboard gear such as external frequency band equalizers or stereo compressors that can impart unique characteristics including “glue” that helps music sound balanced and cohesive. Descriptive terms used in the music industry to

describe the effects of audio manipulation by include “airy top end” to describe treble laden sounds, “round” to describe smooth low end bass, or “punchy” referring to mid-range transients where instruments such as the drums come live. However, a mixing/mastering console desk manufactured by a company such as AMS Neve (i.e., a 5088 console) can cost hundreds of thousands of dollars if not millions in the heyday of unlimited budgets. Similarly, the outboard gear console desks interface with can be very costly ranging from hundreds of dollars to thousands of dollars. These technological components require expert knowledge for use and configuration as well as constant maintenance of parts ranging from vacuum tubes that impart sonic “glue” or electronic pots in switches and knobs that deprecate across time due to use.

Contrastingly, digital software plugins can be acquired for a fraction of the cost of hardware equivalents, often under \$150.00. Digital plugins allow musician entrepreneurs to circumvent learning curves associated with using equipment by including multiple standard presets making their operation very user friendly. Selecting from lists of preset preconfigured by big names in the music industry helps musicians approximated their desired sound. Because plugins are digital, they do not take up floor space nor require maintenance costs for upkeep. As such, digital recording processes pose several advantages over analog counterparts. Interestingly, the value of plugins also affords music industry players such as specialized technicians, with a broader range of entrepreneurial opportunities. Music mix engineers are contractors as well, and many times use the facilities of music record labels to execute on their craft. With digitalization, audio technicians such as Andrew Scheps have reported selling their collections of gear, and switching to all "in the box" mixing approach which allows them the ability to take on more jobs, work from anywhere in the world, and be more productive with their time. Renowned engineers like Chris Lord-Alge have partnered with companies to offer name brand plugins and presets.

Operational decisions allow firms to achieve strategic goals at low cost through the strategic selection of sourcing materials, labor, technology, and quality control efforts which also result in waste elimination and cost savings. The choice of process selection ties in to artistic preference by defining the production method and corresponding supply chain elements needed with some music artist differentiating their records by using “straight to tape” techniques involving all analog signal chains or by associating their finished work with prominent music producers/engineers in the supply chain boasting taglines on albums such as “Mastered by the legendary Jason Livermore” to denote an expectation of quality and professionalism. Supply Chain management choices as such involve not only management, monitoring, and controlling of activities along the supply chain but also the cost effectiveness of acquisition of inputs and delivery of outputs whether these choices fall along the lines of technological processes or human capital. Supply Chain Management decision in operations also involve choice of suppliers, technological capabilities, and ultimately how to deliver goods to consumers.

Musician entrepreneurs too must engage in the ongoing cycle of scanning the industrial environment for new suppliers, updating product designs, optimizing distribution networks, fine tuning inventory methodologies, and utilizing quality. As part of the operational strategy, product/process innovation demands that music entrepreneurs constantly upgrade their workflows with critical consideration on: Quality, supply chain, and costs—all of which require alignment of both strategy and process for synergy. Given the charge to continuously search for alternate methods of production and operational process, we can make sense of how the identification of cutting-edge digital signal chains could pose a worthwhile opportunity for musician entrepreneurs to exploit. Not only do digital recording processes reduce uncertainty

inherent to supply chain elements, but achieve as much by following business prescriptions of decreasing lead time, lowering risk, and increasing supply chain control.

Because expenses associated with high end analog gear are inordinate, professional recording studios may also be leased such reservations requiring contracting an audio technician to oversee the recording process. This traditional approach involves scheduling and external costs which are eradicated by switching to new methods of digital production which offer added benefits such as removing time constraint pressures or mismatches between the sonic tastes of a contracted audio engineer and the vision the music artist has for their work. For example, in the early 2000s rock band The Strokes turned down big name music producers and studios ultimately opting to record their 1st full length album with Gordon Raphael who independently operated a small recording studio in his NYC apartment. The band was not interested in the polished and professional sonic attributes of mainstream music at that time. The resulting album “Is This It?” was a commercial success in part due to the “garage band” sound of the recordings which were intentionally distressed and of a lo-fi caliber. Yet the so called “NYC Sound” ushered in a new era of music dubbed “indie” which encouraged many bands to follow the entrepreneurial route of self-managed productions. Ultimately it is not a question of whether to use one set of music resources over another, musician entrepreneurs are free also contract high- or low-end services. Instead, what seems to be required for performance success are balanced competencies to facilitate sound business judgments and creative decisions.

Under operational strategy, business entities must differentiate their goods/services from competitors so as to gain competitive advantages (Vickery and Droge, 1993). Differentiation and cost play two significant roles under process and operational strategy. For goods, product features are varied, varying product quality can be offered at different price points, or products

may include alternatives such as added on features or premium service packages. For service differentiation, the amount of time, expertise level brought to services, qualification/experience of service provider, and quality of materials/technology used when delivering services are all key factors resulting from the strategic processes decided upon to deliver the service (Baron and Hmieleski, 2018). Strategic performance objectives such as competitive priorities include: Quality, Speed, Dependability, Flexibility, Customization, and Cost. Quality of service can be measured by reliability, responsiveness, and needs of consumers. All three present opportunities and threats for operations with the business goal/strategy aimed at maximizing profit.

In the context of the modern music industry, digital recording process retain the ability to differentiate products as there are thousands of signal chain plugins currently available in the market that claim to produce faithful replications of their hardware counterparts. This maximizes the potential of musician entrepreneurs to be expertly creative and deliver bigger differentiation variances produced with lower effort than previously possible. As such, musician entrepreneurs are able to produce more diverse kinds of music. Digital workstations (DAWs) allow signal chains to be configured in any ways imaginable with more degrees of freedom than that available at a conventional analog-based studio. For instance, a traditional high end recording studio may have in its inventory a pair of optical Teletronix LA2A compressors. These vintage compressors are still in production today retailing new for \$4,700 a piece; they are ordinarily reserved for taming vocals or bass dynamics as the compressor is able to smoothen out sharp tones removing harshness and limiting variations in volume. If needed for more than 2 tracks, the recording engineer would need to print the sound file (re-record the processed playback) on a separate track, reroute the compressor to the new audio source using patch cables, and record the subsequent take, take essentially working in series. The process of printing or “bouncing” tracks,

however, can result in slight degradation of the original sound quality captured. Digitalization of recording processes alleviates such issues while reducing the need for studio technicians who are experts at using such tools to enhance music instead of degrading it.

With the digital emulation of the LA2A (licensed by the same manufacturer, Teletronix, and retailing for \$149) there is no upper limit to the number of instances that the compressor plugin could take. Theoretically, it could be applied to all tracks simultaneously (assuming adequate computer power, CPU and RAM). Other digital signal chains can be built by cascading various plugins in series with a mere click and drag of a button. This offers the possibility of differentiating sounds to extents not previously possible except by recording studios with high-cost resource assets and human capital know how. Modern innovative digital processes offer the key component of differentiation. Musician entrepreneurs can differentiate their creations by playing with musical notes in the digital space since plugins also allow for unnatural manipulations that can result in unique sounds helping music productions stand out in the market and attract listeners' attention and wallets. Increasingly, musicians are finding new and unique ways to extrapolate value.

Digital workflows provide increased flexibility with regard to layout and sequencing. In the classical hardware domain such a feat would require re-wiring of the console desk, careful planning for voltage considerations between gear, and the need to consider frequency loss or signal artifacts that can emerge when systems are set up in ways that disagree with their electronic architecture. For instance, a signal cable and a power cable running in parallel can create a magnetic field causing signal aberrations such as hiss or static. This is not the case with digital software which can be ordered any which way. Unique sequences that are desirable can be saved for future sessions, or if the order by which signals are processed is not up to par with

sonic expectations, entire signal chains can be deleted in seconds and rebuilt to newer specification without serious redesign effort providing musician entrepreneurs with increased flexibility. For musicians working with these new technologies, there exist real value in having access to digitally saved templates, which can be recalled to continue session work in parallel.

Ettlie and Reza (1992) suggests that new technological adoption provides opportunities to create new patterns of efficiency, update hierarchical structure in the value adding chain that transforms inputs to outputs, strengthen coordination and cooperation with designers and manufacturers, and provide system flexibilities that can help foster customer alliances. According to Ettlie and Reza (1992) process innovation is not an automatic process and takes time as otherwise adoption of new operational practices/techniques/methods can become disruptive itself and unsustainable across time. This dissertation strengthens the case that the rewards of adopting digital resources are higher for musician entrepreneurs than for music firms, while conversely the risks of digital adoption are higher for music firms than entrepreneurs. Research has also found that technical compatibility (asset specificity), technical complexity (ease of use), and relative advantage (perceived need) are high ranking antecedents for the successful implementation of new innovations (Bradford and Florin, 2003; Crum et al., 1996).

In alignment with these perspectives, digital processes in the music recording chains offer new patterns of efficiency, flexibility, and seamless transformation of inputs to outputs. By achieving this at lower cost, shorter time frames, and with increased flexibility musician entrepreneurs stand to benefit from alignment of strategy and operational process that can help them radically change production capabilities and attain profitability. In a sense, musician entrepreneurs are now able to fight fire with fire. Digital music resources are indeed highly asset specific, easy to use, address musician needs, promoting musicians at large to adopt new

practices at scale, a term dubbed adoption infusion (Crum et al., 1996). The rapid adoption of digital tools provides support for digitalization acting as a moderator facilitating the ability of competencies such as musical, creative, and business to be successfully levied by musicians in the music industry towards positive performance outcomes. Yet risks also exist in the adoption of such technology including the potential to incorrectly use apply or over use it. For instance, autotune software algorithmically corrects for pitch deviations in a song's key. Melodyne, a software plugin, allows recording technicians to modulate specific notes of singers such that all sang notes are in perfect tune. The incorrect use of pitch correction has resulted in a new vocal style of singers who sounding like robots due to an over application of the vocal effect. While some criticize autotune singing as a fad, others view this is a new aesthetic in audio production.

As noted, there are multiple reasons for adoption of new digital recording methodologies. Not only does digitalization lower costs and provide flexibility but it also affords the user with the power to differentiate products or services along aesthetic dimensions. The ability to work “in the box” free from the technological anchor of analog hardware allows musician entrepreneurs to save time and work in parallel bypassing the need for restructuring signal paths during sequencing activities. The process innovation literature also reveals inherent tradeoffs between innovation and the change management involved therein prompting a consideration of why digital approaches have observed such rapid adoption. Specifically, this dissertation explores how digital moderation may help musicians become more entrepreneurial by virtue of the easily implementable benefits it confers across multiple points in the value and supply chains. I next turn to Transaction Cost Economics to further illuminate on the topic.

When record labels or musician entrepreneurs submit music files over to Mastering Houses who optimizes the sound quality for commercial playback, these music industry players

are said to have engaged in a transaction. Transactions are regarded as the semi-microanalytic unit of analysis in commercial enterprises and are subject to natural selection forces (Williamson, 1981). When internal costs are higher than external costs, business entities engage in interfirm contracting in the market such as booking studio time and musicians for recording sessions in the music industry. When internal costs are lower than external costs, businesses opt to employ internal resources to accomplish the task by bringing the technology inhouse through vertical integration (Coase, 1937). Under TCE, music entrepreneurs hence exist because the cost of economic exchanges within boundaries of an organization are lower than in the market (Barney and Hesterly, 1996).

The advents of digital recording processes and digital distribution offer exactly such a capability replicating the efforts of record label firms at a fraction of the cost. By lowering operating costs through the adoption of digital process innovation, music entrepreneurs may continue to persist in the competitive environment while also garnering capabilities, capacities, and capital. This explanation can serve to explain why, unlike classical entrepreneurs, musicians are able to carry on in their endeavors despite poor financial returns and disenchanting career outcomes. Applying a JOAT perspective, musician entrepreneurs may be construed as gathering entrepreneurial experiences from their failed musical projects which digitalization helps encourage and enable. I next turn to explore asset specificity in the context of musicians.

Asset specificity can be described as the extent to which resources are specialized to fulfill a unique task where they provide maximum value (McGuiness, 1994). Customized computer software is an example of a highly specific asset. Similarly, there is a high degree of asset specificity involved in the transformation of audio sources to musical products which analog signal chains addressed in the 20th century and which digitalization now provides a

viable substitute for in the 21st century. Inferentially, the asset specificity of the musician entrepreneur as a skillful creative may be lost as specialists abilities evolve into generalist ones.

Digital recording processes and the software developers create for music purposes are highly asset specific. Tradeoffs are present here too as the high asset specificity of digital music tools locks the entrepreneur into the music industry's dominant modus operandi. Digital music tools are not as liquid and physical ones which have the property of ownership and may be sold as assets. Meanwhile, digital tools have moved from one-time payment licenses to subscription-based licenses that must be paid for in perpetuity. Under this view, digitalization might serve as a constraint forcing the entrepreneurial generalist towards highly specialized equipment that has limited transferability to other tasks and no resale value. What exit strategy exists for musicians who invest thousands of dollars into their musical ventures and amass non-transferable collections of digital software?

With regard to site specificity, traditional recording studios in the supply chain have unique site resources such as acoustically treated rooms or reverb chambers that impart dimension and 3D spatiality to recordings. Digital emulation software can accomplish the equivalent; for example, Capital Records, a world class record label and recording studio in Los Angeles, offers a software plugin of its famous "capital chambers" claiming that users could attain the same acoustic elements as found in the big band records of the 50s and the audio qualities of recordings from Frank Sinatra or Nat King Cole. Thus, site specificity is also addressed by digital recording processes.

Physical asset specificity and human specificity has been addressed in the preceding section as software emulations are modeled after physical components provided by the same

manufacturers with the same transformational objectives of conferring their brand's signature sound. Presets configured into plugin options allow non-trained individuals to find "sweet spot" settings that mix engineers previously worked diligently to achieve.

Concerning time specificity, digital workflows and digital signal chains allow for multitrack processing eliminating the need to go back and process individual track channels based on expensive analog hardware disposable to the music artist. As such, recording, mixing and mastering an album may take days instead of weeks or a week instead of a month. This time specificity allows record label firms to output greater volumes of content at lower cost. For musician entrepreneurs, time specificity reduces the time needed to get new songs to music markets potentially allowing musicians to shift cognitive focus on other aspects such as marketing or live performances.

The subsequent figure encapsulates the various signal chain technological elements within modern recording processes. Key features include analog-digital converters, choice of sampling rates, outboard channels connecting to analog gear, and signal processing that cycles back into the chain.

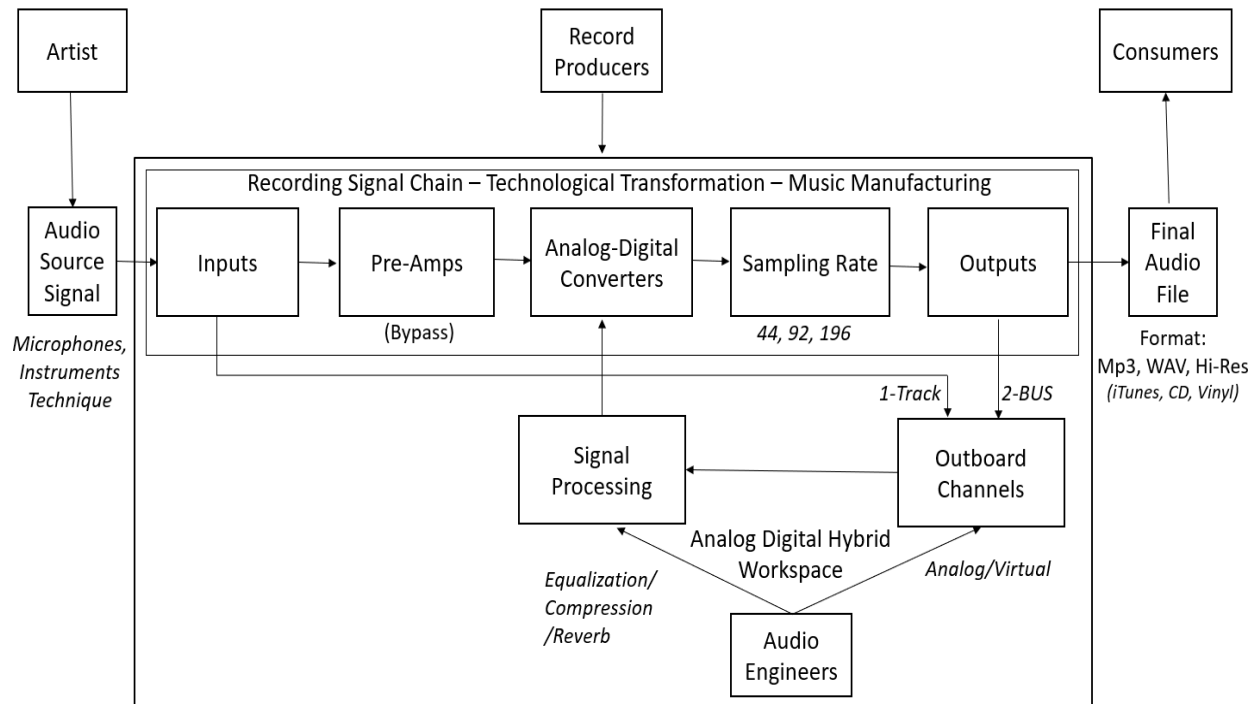


Figure 4: Music Industry Digital Recording Value Chain

2.5.3 Digital Innovation and Agency Costs

Through first order economizing, Williamson (1991) presents TCE as an economic problem of effective adaptation and waste elimination in which firms respond to equilibrium disruption in the institutional environment. In the music industry, such disturbances are readily evident with deleterious effects on firm performance. There have been shifts with new policies such as the Digital Millennium Copyright Act aims to protect the royalty payments of artist. With online platforms such as forums, discussion boards, or YouTube channels, industry experts are sharing their recording knowledge for free allowing musician entrepreneurs to take up such practices. Lastly, the digitalization of distribution networks and new licensing business models have resulted in consumer preferences for individual songs (i.e., “hits”) versus entire albums.

Whereas a music artists would benefit from 1 hit song that generates revenue from the sale of an entire album at \$15, now singles sell for \$1 on average. With the popularity of streaming services, royalty contracts now specify that for every 1 million plays there is a pay structure equivalent to \$8,000. These returns entail large risks and uncertainties involved in committing to funding the recording of an entire album urging music industry firms to reconsider their contracts with supply chain elements such as recording studios, engineers, and producers. Given the benefits of digital processes, it may be more convenient and low cost to invest in libraries of digital processes plugins instead. On the other hand, digitalization's effects create a bigger gig economy with an increased pool of contractors that can fulfill services at more competitive rates, lowering cost and risks for music entrepreneurs, while increasing potential returns. Overall, TCE helps explain why multiple players in the music industry are rapidly adopting digital process innovation. Not only does it result in lower transaction cost, but the benefits of vertically integrated methodologies hold the potential of conferring superior performance as compared to traditional contracting, leasing, or renting tactics.

Alternatively, TCE also warns about agency problems and bounded rationality concerns which can be described as the limited informational processing ability of managerial agents and manager's inherent self-interest. Agents in the music business attempt to be rational and search for alternatives, but due to cognitive limitations, managers may instead find themselves satisfying and employing good enough solutions instead of those that are maximizing. This agency concern is particularly relevant to this line of discourse as attempts to lower cost and regain profitability may result in misguided business practices which can hurt performance instead of enhancing it. For musicians in record label contracts, there is a risk for exploitation resulting from bad management as has been recounted in a myriad of stories including that of Elvis Presley and his

gambling addicted manager Colonel Tom Parker who interned the King of Rock in a Las Vegas residency which with suboptimal earning potential compared to touring internationally. For musician entrepreneurs, there are also agency problems innate to the role perhaps owing to limited competencies in business or artistic domains. I have recounted how process innovation requires minimum standards of quality to be successful and also noted how digitization has previously been critiqued to offer suboptimal sound quality. The TCE discussion surrounding digital adoption argues that music entrepreneurs employ lower cost alternatives (such that they don't break the bank to put out musical works) and therefore engage in entrepreneurial behaviors repeatedly helping to achieve growth and increase the likelihood for commercial success.

2.6 Digital Marketing

One major advent of digitalization includes the proliferation of social media platforms such as Myspace, YouTube, Twitter, Facebook, Instagram and others where users such as musician entrepreneurs can market and network their artistic identity to digitally share updates ranging from personal snippets into daily life, to promoting live appearances, and showcasing their talents through narratives, pictures, and videos (Schwetter, 2018). The ease with which digital content can be shared and spread on social media platforms has resulted in a hot bed of content creators sharing their creative works in order to amass followers, sequester likes, secure sponsorships, and essentially act as standalone business entities engaging in the practice of marketing (Morris, 2013). While an elite standing of social media accounts has resulted in a unique class of individuals dubbed “influencers” it is equally compelling to note that artists and musicians also partake in such entrepreneurial activities sometimes being solicited to review music equipment, advertise companies, or simply collaborate with other accounts to reach new audiences. Subsequently, I turn to the subject of social media as a digital channel for marketing.

2.6.2 Social Media

Social media has been studied in the academic literature by various disciplines including Marketing, Management, and Information Systems. Relevant to our context, Alkhowaiter (2016) finds that social media platform Instagram has the power to build up small businesses as demonstrated in Saudi Arabia where women have become entrepreneurs by exploiting the platform to reach consumers and sell products that are self-marketed and self-managed. Some advantages noted include low costs for both startup and maintenance of business accounts. Similarly, social media mirror e-marketing and e-commerce paradigms forming multidisciplinary elements for understanding organizations and consumer relationships. Research suggest consumers have an innate curiosity for understanding new brands (Ahmadinejad and Asli, 2017).

In the context of musician entrepreneurs, music artists and groups act as a brand following small businesses practices with aims of growing sustainable revenue streams. To them and others, sites like Instagram offers a platform to market creations. Such associations are evidenced by Chen (2018) whose research shows that young consumers are keen to the viability of social media platforms as a novel source of social engagement. Users have perceptual schemas about social media as both a medium for sharing content and a mirror of celebrity. Young consumers have been found to be particularly receptive to privileged information, marketing subtleness, and endorsements promoted by influencers. Such effects are amplified when social media efforts are coordinated across a vast array of platforms such as Facebook, Twitter, YouTube, and Pinterest (Howard, Mangold, and Johnston 2014). Creating effective content for social media campaigns including those from music artists has nonetheless proven to be a difficult task riddled with uncertainty (Jaakonmaki et al., 2017). As social media sites proliferate and user bases change, scholarship is left lagging in understanding these markets.

Nonetheless, markers for engagement which predict performance have been identified in extant business research such as the qualitative textual or visual features of Instagram posts. Astuti and Putri (2018) portend that social media platforms and account activity results in the development of consumer trust which has a positive effect on purchasing intensity. Other factors have been identified whereby accounts with vast amounts of followers induce perceptions of popularity which similarly augments likeability and trust (Veirman et al., 2017). Therefore musician entrepreneurs provide a steady stream of both artistic and personal content with interspersed advertisements to gain reputation, status, following, popularity, and encourage sales.

Despite a dearth of research on the ecology of social media platforms, branding strategies and social media account phenomenon remain largely “under the radar even though it generates sales equivalent to a proper e-commerce business” according to Latiff and Safiee (2015). Other academics have noted opportunities to identify “competitive advantages” and urge researchers to learn more about these new systems, motivations, and digital marketing implications (Agung and Darma, 2019). Research by Ting et al. (2015) adds that social media is gaining a strong foothold in emerging markets and academia needs to understand behavioral beliefs of accounts and unearth factors such as personal gratification, usefulness, socializing roles, and entertainment as driving forces in social media use. Accounts created by users trying to promote their cultural creations such as musical songs, photography, or poetry provide exactly this in terms of entertainment, personal gratification, and a myriad of utilities afforded by cultural goods (Choo, 2015). Entertaining content is relevant and important because it provides the binding upon which products and services can be sold—similar to TV soap operas with commercials in between.

Despite increasing research regarding social media influencers, brand awareness, and business opportunities for entrepreneurs, there exists a research gap in the literature addressing

the theoretical foundation upon which the social media phenomenon is predicated. Lacking as well, is research regarding music industry-esque activities within the greater social media ecosystem. A research inquiry here seeks to understand what foundational scaffold social media provides that may be used by marketers or entrepreneurs to drive societal advancement including economic freedom in the digital age. Relevant to JOAT this dissertation explores how effective musician entrepreneurs are at digital marketing and whether their networking competencies coincide with effective social media campaigns that translate to positive performance outcomes.

Social Media accounts such as Instagram are replete with a multitude of phenomenological activities across various industries (fashion, photography, culinary) with social activity ranging from social networking, self-expression, and identity construction towards the commercialization of popularity observed within influencers (Morris, 2013). In the context of the music industry, there has been a proliferation of cultural activity as social media becomes a wellspring where musicians can amass followings by sharing posts showcasing their musical personality, ability, or tastes. Whereas previously music artist or groups had to play in front of audiences or submit relinquish their musical works to music industry firms in order to reach and build followings, nowadays social media platforms provide a means to achieve such feats. Sharing music with from the comfort of one's phone while providing entertainment content accessible to close to 1 billion social media users thus represent a radical shift in marketing.

There exists a plethora of accounts producing constant content in a bid for people's attention, likes, followership, and presumably the revenue that comes from it (Bayum, 2009). However, exposés about the nature of social media's business models which provide a free platform in exchange for user's data and online habits, bring into question the integrity, utility,

and legitimacy of social media in shaping culture. This is complicated by recent studies which reveal increases in anxiety and depression amongst social media users (Bannerman, 2011).

What is it then that drives social media musicians engaged in marketing activities towards their self-perpetuating purpose? I begin with an examination of the voyeuristic quality innate to social media activity. The user's profile contains media that is posted to their follower network while also being broadcast on the broader social media feed based on popularity, trending statistics, or algorithmic curation which can take the form of paid promotion; i.e., boosting posts (Anderson, 2006). In the music wing of the social media platform Instagram, users label themselves with tag markers such as musician, singer, photographer, producer, DJ, drummer, bassist, band, or simply artist. Such labels act as a social signaling cue for fans as well as providing a means for content to be queried against by general users whose curiosity can also be reached through #hashtags. Posted content such as videos, photos, polls, and livestreams solicit the attention of platform users, account followers, and hashtag communities gathering views, likes, comments, shares, and new followers. Meanwhile, social media statistics provide status with viral status garnering reach to diverse social media communities who may repost content (sometimes on other platforms) increased exposure for the original account (Beer, 2008).

Music related accounts vary on posted content with some major distinctions. There are users who sing in either an acapella fashion (no music) or sing to music playing in the background and record the superimposed performance through their smart phone cameras. There are instrumentalists who showcase their musical talents through short clips or full videos of instrumental performances (piano, violin, guitar, drums, keyboards, etc.). Such videos are shot with smart phones resulting in amateur quality yet authentic style, whereas more professional accounts may employ higher production quality such as 6K video on dedicated equipment and

high-resolution pre-recorded audio. Professional accounts may post full productions with music videos of industry grade quality (audio/video/lighting/design/editing). However, more often the content reflects a snapshot of the natural artistic or creative process's ebb and flow such as post about being in the music studio, listening to music, or everyday activities like eating at restaurants. At other intersects, social media content can become more deeply personal.

A potential dark side of this social media frenzy includes increased demands on music entrepreneur to engage with fans and constantly produce content resulting in social anxiety, burnout, unrealistic expectations, and validation of failure when online performance does not coincide with the level of effort invested (Morris, 2013). Simultaneously, advertisers target musicians using music related keywords in their post, flooding their account feeds with corresponding ads for music instruments, music services, or account/post boosting. Musicians are thus cornered into manipulative practices to maintain social media status, such as buying views and followers consisting of account bots, or comprising artistic integrity by creating gimmicky, trendy, or controversial content. This subverts the primacy of music instead shifting focus to non-musical activities.

Self-exploitation in such regards may be worse than the music industry's iron grip whose focus remains steadfast on performance factors such as mass appeal and brand identity. To this effect, rappers have pointed out that, "Once you're in it, it's hard to get out of it, because your known for that stuff and can't get jobs" (Brown, 2022). Social media imparts both good and negative opportunities for music entrepreneurs. In this dissertation, I question whether social media networks are an adequate or poor substitute compared to music industry networks? Moreover, what do entrepreneurial competencies reflect about the types of networking musician entrepreneurs embark on in terms of diversity, quantity, or quality. If Lazear's Jack of All Trades

theory holds up, relationship or organizational competencies may be observed from musician entrepreneurs who engage with social media to assert themselves on the market (Ellmeier, 2003).

In addition to posting content, users must consume content and engage the social media platform network through likes, comments, shares, and tags whose cyclical process helps strengthen the social media accounts prominence, platform reach, and marketability. In such a manner, musician entrepreneur posts intend to provide entertainment, showcase talents, build fanbases, promote the sale of cultural products, and engage in social interactions that spark virtuous spirals in terms of entertainment value, artistic expression, and new sources of economic rent (Morris, 2013).

Remarkably, social media also encourages the promulgation of other forms of content for musician entrepreneurs such as tutorials, music courses, mixing lessons, video editing, account promotions, or linking alternate accounts like Fivver, Cameo, OnlyFans, where activities can be monetized for tips and service payments. The qualm that such behaviors distract from music and creativity resurfaces as a point of contention. I argue, in alignment with Jack of All Trades theory, that such proclivities towards differentiation make the individual more entrepreneurial with music entrepreneurship serving as a type of door to the world of entrepreneurship which is much vaster than the realm of the music industry alone. Music itself may be a type of investment strategy taken up by nascent entrepreneurs to obtain experience, competencies, and connections.

Empowered by fan engagement, established major music acts such as Radiohead too self-publish and successfully self-market new music goods and events through social media platforms; indeed, popular and professional artist too participate in the digital networking milieu. However, whereas effective deployment of digitalization technologies by eminent public figures

and celebrities can be analyzed through the pareto principle (the rich get richer), it is not clear whether social media platform and entrepreneurial guise alone can catapult users into the lifestyle of the rich and famous. Obversely, social media may instead illicit false perceptions about what success is or what it takes to achieve it while simultaneously coaxing musician entrepreneurs to engage in a cultural isomorphism that may not be aligned with music industry best practices. As such, another trade off may be found in social media adoption setting up a music entrepreneur without sufficient business and artistic competencies for premature failure.

Social media accounts with platform prominence and mass follower acclaim do undeniably find considerable financial returns in the form of sponsorship revenue, royalty streams, sales, or fan patronage with super accounts raking in thousands of dollars per month and six figure yearly incomes (Dumitrica, 2020). Coupled with the promise of stardom, financial profit, and real-world virtual-viral celebrities interacting freely with all, troves of users dedicate immense resources towards the creation and dissemination of artistic products, cultural goods, and social media content (Baym, 2009). While some accounts provide new content sporadically, others provide a recurring stream of daily entertainment and engagement as new music is written, covers of popular songs are performed, sponsored equipment great is reviewed, highly technical knowledge is shared, vinyl albums are unboxed, and the sort. Platforms like Instagram, Tik-Toc, and YouTube are hence replete with content bidding for attention in pursuit of social media popularity and all the beatitudes therein. Yet, such activities may be difficult to monetize especially if the musical work is pastiche; i.e., a cover of establish work. In such cases, the revenues go to the owner of the copyright which often include music firms and publishers.

It is at this dialectical juncture that the cocreation of an object-subject reversal becomes evident. Where content is created and consumed concurrently, the consumer and his activities

become the product of the social media machine—only to be auctioned and consumed later as digital commodities in the big data market by advertisers. The phenomenon is not unique to social media and has been demonstrated by Adorno (1954) to be characteristic of the larger culture industry who for decades has employed symbolic and embodied works of art to compel audiences towards insatiable purchasing behaviors. Bought goods have historically included records, tapes, and CDs and ancillary adornments such as musical gear and instruments, fashionable clothing or accessories, or the newest audio technology ranging from high fidelity Atmos 9.1 surround sound systems to personal devices including smart phones and apps.

The inclusion of the smartphone and associated music streaming platforms in this list not only signals a radical shift in consumer preference towards the unbundling of music albums into singles and streams (a feature that coincides with Adorno's critique of shortening attention spans), but also underscores the development of music ecosystems such as iTunes by Apple in order to showcase smartphone features and drive consumer demand for new technology. Recently, telecommunication providers have offered free subscriptions to music streaming platforms such as Spotify, Deezer, and Pandora when opening new lines of service illustrating how cultural goods like music recordings underlie the larger supply chain networks of mass markets. Yet again, musician entrepreneurs are affronted with the possibility of being exploited by a big other. While the big other may not be the music industry firms of yesterday, it may nonetheless reflect a weaponized arm of the bigger culture industry with aims to sequester audience attention, distill personal metadata, and forge shopping preferences (Zizek, 2015).

Irrespective of threats, music entrepreneurs and other users keen to digital business models and social media tactics look past the proclivities of advertisements and big data mining programs instead finding the hedonic value and social utility afforded by free platforms well

worth the nuisance of content interruptions and privacy costs. For the music entrepreneur seeking to pilot the competitive environment, technological awareness is a requisite. In everyday user experiences, marketing plays transpire covertly in the imperceptible backend with the frontloaded result being advertisements for products or services interspersed between follower content in user's personal feeds. The outreach may take the form of a grungy striped t-shirt, custom made trinkets, concert events, and general necessities such as deodorant or soaps (Marwick and Boyd, 2011). Oftentimes, the content is tied to specific social media accounts which gain followership by providing entertainment in addition to offering marketable items. In entrepreneurial fashion, non-business accounts from the general user base engage in marketing efforts in attempts to earn profits too from their artistic and cultural contributions. Such users, self-dubbed as artists, may sell or giveaway limited edition artefacts, made to order products, or offer services such as tutorial videos, music lessons, and personal shout outs in upcoming posts.

Whereas the principle aim of social media business accounts is to sell products and generate profits, and that of general users are 3 big Es I describe as expression, engagement, and entertainment. The underlying purpose of music related content creators is not self-evident. A review of the literature indicates that artist create for their own hedonic enjoyment and the same seems to apply to active social media music accounts (Beer, 2008). This is highlighted by multiple accounts whose daily content involves pastiche of musical works in the form of covers whose descriptions and hashtags may denote that the user is learning an instrument, sharing in their musical journey, or simply posting for fun. The content pushers described thus align with the class of hobbyists. At this node, this dissertation inquires: how are hobbyists different from amateurs? Are they an antecedent form of musician entrepreneurs? Or simply intermediaries akin to critics in the new business environment or might they simply represent fanatics of the old

industry? The question is of particular relevance as music hobbyists or amateurs can make determinations to enter the market as music entrepreneurs providing additional competition.

Understood through this lens, the maelstrom of activity observed from social media music accounts can be distinguished as free entertainment provided by hobbyist of varying proficiency ranging from the amateur to the technically professional (Ross, 2011). Under Lazear's balanced skill perspective, the limiting competencies may not so much be business savvy but mastery over musical or creative competencies that are the hallmarks of professional musicians. Conversely, verified artist and professional band accounts grow and maintain fanbases through new artistic content in the form of original music produced at the highest industrial quality that their record label firms are willing to afford. Because original music earns rent through the publishing company's royalty system, professional accounts can be thought of as business accounts marketing cultural products, promoting events, and generating revenue through social media.

Alternate agendas do not run counter to the authenticity of verified artist's posts. Irrespective of the profit motive, there are genuine outreaches and exchanges with fans which serves to legitimize social platforms by providing an ecology of egalitarianism and true sense of democratization. The pursuit of this dissertation lies in understanding differences between music industry engage-ist on social media platforms. Similar, I inquire as to how social media helps musicians act as entrepreneurs. Does social media engagement reinforce musician's general competencies or do specific competencies like musical ability subserve with other skillsets such as networking. I next proceed with an examination of social media whose exposition may help address our fundamental question of whether individuals can harness the powers of digitization towards social liberation, entrepreneurial freedom, and sustained self-managed careers.

2.6.3 Social Media Entrepreneurship

Entrepreneurship is broadly defined by Venkatraman (2000) as “activities that involve discovery, evaluation, and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, processes, and raw materials through organizing efforts that previously had not existed.” We are able to frame social media music phenomenon as flippant instantiations of entrepreneurial behaviors aimed at introducing individual level entertainment through the coordination of music industry tokens such as music videos, photo shoots, and press interviews (Postigo, 2009). Unlike the grandiosity and hyperrealism afforded by music industry platforms of MTV and FM radio, social media entrepreneurial acts take on an amateur DIY aesthetic dealing with matters on a realist plane. The subsumption of industry practices to those conjured in homes by smart phone cameras constitutes a mimetic-isomorphism of sorts as more users observe the counterfactuals being realized and participate in viral form (Rogers, 2013).

There exists a preponderance of social media users who establish followings by riding on the talents of others. Such class of users almost exclusively perform the works of others contributing very little in the way of originality or creativity instead adding to the homogeneity of the culture industry (Jenkins, 2006). Social media also hosts groups of users who display technical prowess by playing instrumental solos and complex musical arrangements. The display is indicative of an underlying talent, yet the regurgitation of a popular 30 second musical performance that is part of a broader more complex whole would make critical theorists such as Adorno turn in his grave. The equivalent is playing only the 4-note theme from Beethoven’s 5th on piano and expecting social praise for it: Dun-Dun, Dun-Dun. As an alternate example, by performing the guitar solo from Led Zeppelin’s Stair Way to Heaven, audiences may be deprived of the spirit of the song which helped genesis the inspiration for the solo itself.

Lastly, we have a subset of social media users who promote their own original creative content either in the raw naked form of an acoustic song, or in fully produced music videos and accompanying behind the scenes footage that can be marketed pre and post release. At this stage of our analysis, a bifurcation in the system is evident. Established artists who legitimized by the original quality of their content operate as agents of the greater music industry sect. The ones who create unabashedly and without restraint may do so at lower levels of production quality, yet this may render their efforts futile nonetheless. Should a lone artistic warrior achieve success of considerable magnitude by their artistic talents and entrepreneurial efforts, then the artist is likely to be identified by the music industry machine and incorporated into the culture system, exiting the musician entrepreneur realm of generalist in favor of specialization. Examples can be found amongst the DIY punk movement of the 1980s which resulted in commodification of the subculture's fashion and "selling out" of punk bands' ethos for short lived economic gains. The contention here, nonetheless, lies is that performance levels represent an uneven playing field, such that nontraditional measures of performance are necessary for valid evaluation of success.

Countless examples of viral success have risen to prominence including Justin Beaver, Post Malone, and Billie Eilish whose jettison to the stratosphere of stardom upon "discovery" online has spurred on myths surrounding the feasibility of independently recording, releasing, and marketing music. Billie Eilish created her 1st full length album with brother Finneas in their childhood bedroom using digital tools and instruments, but had been releasing singles for years prior. Meanwhile, Post Malone posted a song on a digital platform SoundCloud and a recommendation on social media platform Twitter by a major artist resulted in the artist's "breakthrough" moment. Similarly, Justin Beaver was discovered for YouTube videos of his street performances which caught the attention of music producer Usher. While such stories

ignite the motivations of many artists, the truth remains that to be discovered musician must independently amass hundreds of thousands of followers or millions of plays per day. According to one record label executive, the bottom threshold limit is 10K active followers for mere consideration. Once identified, artists are paired with music industry experts, producers, choreographers, and the lot of the culture industry's administrative hammer which irons originality out of the artist's fabric leaving a mass media product available for consumption.

As such social media presents a case where we have a coalescence of various music industry players striving for similar objectives but ultimately being consumed by the capitalist patterns rampant in the entertainment business (Ross, 2012). I arrive at a research quandary which beckons: How can digital platforms with so much potential for freedom of expression and neo-liberation, be reduced to such depths of pastiche as observed on social media. More pertinent to the dissertation, I ask what performance levels digital platforms confer in terms of creativity, musical ability, or business prowess. Most importantly, are there legitimate opportunities and viable avenues with which to leverage digital platforms for users such as musician entrepreneurs, as valid entrepreneurial ecosystems. If so, what competencies facilitate positive network effects?

2.7 NextGen Technological Disruption: Blockchain and Artificial Intelligence

In the year 2020 there was an explosion of interest in blockchain technology and the world of digital art as NFTs (non-fungible tokens) exploded on the market with immense evaluations and some pieces of digital art selling for thousands of dollars due to embedded blockchain tags conveying ownership rights. Research reveals that the intersect of artwork and blockchain are nothing new and have been operant in the quiet background for years. As of 2018, market intelligence groups like the ICD estimated that innovative blockchain solutions for buyers, sellers,

banks, and logistic companies exceeded \$2 billion in 2018 with an 81% growth rate year to year and forecasts predicting a market of \$9.7 billion by 2021 (Kessels, 2019; Koh, 2018; Mould, 2019). The latest research stream focuses on blockchain music firms and their technological applications (e.g., Hawlitschek et al., 2018; Rosenblatt, 2017; Zhao, 2018). However, limited research has been conducted on entrepreneurial agents such as musician entrepreneurs and the ways they are adopting blockchain solutions into their creative self-managed businesses.

Principles of blockchain technology stem from the Satoshi Nakamoto whitepaper where the anonymous author outlined and set up Bitcoin as a peer-to-peer currency system (Nakamoto, 2008). The bitcoin computer protocol contains a digitally decentralized “distributed ledger” that keeps records of all peer-to-peer transactions in a network with 700 megabytes of blocks allowing for a frictionless medium of exchange without the need for centralized authority; i.e., trustless (Woodside et al., 2017). Popular interest in cryptocurrencies has exploded in the past decade (Beck et al., 2016; Sitonio and Nucciarelli, 2018). Outside of financial speculators and crypto markets, it is the blockchain technology itself that is of interest to entrepreneurs and venture firms alike for its innovative applications to many business processes including those in the music industry (Adnoi et al., 2019; Nowinski and Kozuma, 2017).

The music environment has been a focal point for musician-centered blockchain startups (Acros, 2018). Tech firms offer to address major issues in the music industry including transparency of licensing and royalties, removal of remaining costly intermediaries, piracy protections, contract procurement autonomy, and reward based self-funding (Althiban et al., 2019; Blanco et al., 2018; Fabian, 2017). A review of music blockchain whitepapers further indicates that the ideological positioning of these music tech firms proports to provide a morally and ethically superior medium for music artist to share and commercialize their creative works (Elshan

et al., 2021). The value proposition for artist services are delivered through blockchain features ranging from: recordation of metadata, digital watermarking, tokenization, smart contracts that can be built onto future music formats (.BC files), and decentralized applications (dApps) that can serve as next generation music platforms (Giraldo, 2020; Kessels, 2019).

Primarily, blockchain recordation allows for complete and unchangeable copyright information to be stored in public ledgers that include performing artists, co-writers, session musicians, producers, engineers, and the like. With regards to copyright and piracy, digital watermarks can be encoded into blocks in .BC file formats which track copyright owners, purchasers, and details regarding playback in a decentralized public ledger (Elkin-Koren, 2011). While intermediaries such as Performing Rights Organizations (PROs) have risen to the challenge in tracking and coordinating music sales and plays, they often enact payment models such as Spotify's .007/play which leaves music artist earning scant returns for their works.

Ethereum provides a solution to this agency problem. Ethereum is a blockchain protocol with the world's second highest valued cryptocurrency, Ether. Ethereum's protocol extends beyond the peer-to-peer cashless system established by Satoshi Nakamoto with Bitcoin, by building a semantic computer programming layer atop of the blockchain where self-executing smart contracts can be developed. Smart contracts can specify how much payment is to be collected from a cryptocurrency digital wallet when a copyrighted song is sold, played, or shared. The implication for music entrepreneurs is that music made available on the blockchain could result in true direct-to-consumer models predicated on instant payments—eliminating intermediaries which take fees for coordinating such transactions. Payments, typically in crypto, can be automated to go straight to the copyright holder bypassing other intermediaries such as

performing right organizations, streaming platforms, aggregators, and record labels. This provides the potential for a complete dissolution of music industry's 20th century business model.

Blockchain incentivizes music communities to engage in equitable practices and be rewarded for it through tokenization. Tokenization refers to the ability of music fans to acquire tokens can be used in transactions ranging from tipping their favorite artists, obtaining access to exclusive digital content, or purchasing merchandise online or in concert. Hence, blockchain is said to create an architecture for participation rewarding power users and influencers while incentivizing listeners. In this architecture reside higher order decentralized Apps, or dApps, which contain the entire blockchain ecosystem of contracts, tokens, and community platforms for the future music industry 4.0. An overview of the blockchain literature identified 102 music ventures founded in 21 countries between 2011 and 2018 with 6 major blockchain related service offerings such as music rights as the #1 most popular followed by tokenized systems at #3 .

The United States is home to the highest number of music blockchain firms followed closely by the UK. However, some sources estimate the existence of more than 4,000 blockchain based companies in aggregate. There are problems evident related to slow digital adoption and contradictions with the entrepreneurial literature regarding entrepreneurs and their identification and seizing of opportunities—musicians are not scouting the competitive environment for opportunities. Given the review thus far, how can they if they are overtasked with marketing or working on competencies within their capacity such as musical ability. In this case, industry level strategic knowledge and opportunity identification remain absent if not lacking, at best.

Irrespective of the multiplicity of innovative startups, blockchain technology adoption remains largely obscure. Even more perplexing, musician entrepreneurs who may benefit the

most from blockchain applications are at peril from losing first mover advantage to major record label firms who are investing in Bitcoin and forming strategic alliances with music blockchain ventures. Music blockchain technology is highly novel and innovative with entrepreneurial ventures applying blockchain applications such as smart contracts (Althaiban et al., 2019) to improve business efficiencies ranging from digital performance tracking, intellectual property protections, to cost savings afforded from the disintermediation financial systems (Acros, 2018). In the music industry, blockchain implementation has been proposed to alleviate a variety of control issues and market inefficiencies that should in theory empower musician entrepreneurs by moderating the relationships between their competencies and performance outcomes (Sater, 2018; Blanco et al., 2018). However, that this is not currently the case bring into question the validity of digital adoption in helping musician entrepreneurs while also prompting a reconsideration of what a balanced skillset entails for musicians lacking specific competencies.

The 2020s have also given way to the emergency of Artificial Intelligence technology on a commercial albeit nascent scale. Advances in stacked large language models (LLMs) have allowed companies such as OpenAI to launch ChatGPT4 which ingests corpus of knowledge from literary text and be able to respond to prompts in an intelligible manner that not only mirrors human conversation but is likewise able to output copious written content on any number of subjects and in different applied styles. Applied to the music industry, ChatGPT4 has resulted in novel applications such as being able to write song lyrics in the style of established superstars such as country artist Willie Nelson or gangster rap artist Tupac Shakur.

Breakthrough in LLMs has resulted in increased venture capital funding for AI companies which are increasingly exploring alternate uses cases for technology beyond written language moving more so towards visual and audio creations. AI tech is now able to analyze the

sonic profiles sound recordings and digitally replicate them resulting in new songs that sounds like established acts past and present. For example, songs can be AI generated that replicate deceased artist John Lennon's vocal and musical stylings. Resultingly, social media content has emerged with astronomical performance outcomes from users prompting song creations using unique combinations of voicings and lyrics (e.g., write a new Nirvana or Drake song) with some critics arguing that the AI generated songs are better than newer releases by the same music artist bring into serious question the value of artistic competencies such as musicianship or creativity when talent can be automated.

2.8 Summary Digitization and Democratization of the Music Industry

In summary, the Music Industry Supply Chain extends from Artist/Songwriters to Consumers with record label firms enhancing captured performances through access to vast resources and technology. Our literature outlines the value added by record labels (resources), producers (content management), and innovations in recording technology as part of the music supply chain and highlights how digital products and digital distribution has spurred challenges and tradeoffs due to innovative disruption. Cumulatively, innovative disruption has provided opportunities for music entrepreneurs and amateurs/hobbyist to level up and maximize lifetime income while pursuing something they feel is meaningful and worthwhile.

While scholars contend that the digitalization of the music industry allows for democratization of music such that anyone with a computer can create and distribute music recordings to varying degrees of commercial success, there has been sparse mention of how recent changes continue to eliminating the demand for intermediaries which due to advances in AI may now also include songwriters and musicians. This dissertation's aim is to test the claim

that digital adoption adds to the value chain in the dimensions necessary to achieve competitive advantages. Further, this dissertation will analyze how digital adoption practices apply to the musician entrepreneur acting like a record label firm in practice but who may not have all of the resources and competencies necessary to bring their cultural products to markets where the benefits of commercialization reside. Regardless, powerful new tools such as social media platforms now ubiquitously provide members of modern society with platforms with which to disseminate content, share creative works, and monetize social media followings (Bayum, 2012).

Despite the advantages purported, blockchain tech remains largely outside of mainstream adoption by music entrepreneurs who stand to benefit the most from it (Conti, 2018). This creates an apparent paradox as music entrepreneurs high in traits like creativity should theoretically gravitate toward innovative behaviors and non-linear thinking characteristic of opportunity-cognizant entrepreneurs (Foo, 2011). The resultant divide puts into question why it is that music blockchain adoption remains an enigmatic choice for musicians. By evaluating competencies under a Jack of All Trades theory, the phenomenon of slow adoption rates for blockchain music could be better understood as providing musicians with an entrepreneurial roadmap and toolbox, much like the advents of the digitization and the internet, which competencies can be developed to make informed decisions upon. Meanwhile, technological breakthroughs in AI again threaten the viability of music industry practices to carry onward into the future. For musician entrepreneurs, AI too can be construed as posing risks and benefits which subsist as challenges for their competencies to sort out. In the following figure, I provide a summary of the concepts explored thus far as how they pertain to the musician entrepreneur. In the next section I turn to an in-depth assessment of musician entrepreneurs and proceed to develop hypothesis concerning competencies, performance, and the role of digitalization.

Table 1: Summary of Theoretical Perspectives

Theory (Author & Year)	Theoretical lens in context of Music Industry
Jack of All Trades (Lazear, 2004)	<p>In Lazear's Jack of All Trades Theory individuals require balanced skill sets & generalized investment strategies along a variety of functional areas to succeed as entrepreneurs. Meanwhile the weakest competencies serve as limiting factors for success. For musician entrepreneurs, this entails having both business and artistic competencies.</p>
Resource Based View (Barney, 1991)	<p>Resource Based View argues that resources are key to superior performance. Under RBV, sustained competitive advantages is achieved by the creation or acquisition of valuable, rare, inimitable, and non-substitutable resources which may take the form of property and knowledge-based resources. Barney urged that competencies are the key resources of human capital (people) which enable business success.</p> <p>For musician entrepreneurs, resources include artistic competencies and creator identities which serve as brands that can be marketed.</p>
Transaction Cost Economics (Williamson, 1979)	<p>Transaction Costs reflect expenses, beyond the cost of production, incurred by engaging in economic exchanges. TCE suggest exchanges produce coordination costs associated with monitoring, controlling, and managing transactions. The decision to organize transactions within the firm as opposed to open market (make or buy), becomes a major consideration in operations and management.</p> <p>Through digitalization, musician entrepreneurs decrease supply chain costs associated with music creation, production, and distribution but may incur agency risks of making suboptimal decisions due to underdeveloped competencies.</p>

Table 1, cont.

Pareto Power Law (Rosen, 1984)	<p>Distribution of earnings can be sustained by imperfect substitution according to Pareto Laws. Rosen asserts that technological changes allow top performers to serve bigger markets and reap a greater share of the rewards. The superstar phenomenon describes small but extremely profitable entities dominating the markets they compete in (winner take all).</p> <p>For musician entrepreneurs, Pareto distribution implies that few achieve commercial success and stardom.</p>
Culture Industry (Adorno, 1941)	<p>According to Adorno, works of art are turned into consumer products shaped by a logic of capitalist rationality (maximizing profit) and the economic principles of mass production. Products of the culture economy take the appearance of artwork but are embedded with deep cultural mechanisms that commodify consciousness and keep workers busy with amusement as an extension of labor.</p> <p>For musician entrepreneurs, Adorno's theory suggests macroeconomic forces influence self-exploitation via capitalistic consumption of goods and services, compromised integrity, and diminishing returns for the richness of culture.</p>
Cultural Capital (Bourdieu, 1986)	<p>Bourdieu makes the claim that Cultural Capital consists of intangible and symbolic elements conferring status and significant effects on social mobility and personal success. The fields of cultural capital are described as spaces for competence, supremacy, and struggle for resources including knowledge, skills, and experiences.</p> <p>For musician entrepreneurs, talent provides a cultural capital that can be used economically yet Bourdieu warns of the "illusio" of cultural capital to be "taken in and by the game."</p>

2.9 Entrepreneurship: Artist Creators and Firms

Entrepreneurship has a long history in western culture with the etymology of the word coming from the French who combined the word *entre* (to swim out) and *prendes* (to grasp) in the 16th century with certain instances of the term being used to refer to street artists in France with high artistic aspiration but meager financial resources resulting in bartering (Jacques des Bruslons, 1723; Rea and Volland, 2015). Entrepreneurs transmute value through their time, energy, and resources conferring value onto consumers while reaping a consummate reward for it (Drucker, 1993). A key distinction between standard businesses and entrepreneurial ventures is found in that the former deals with selling existing goods and services while entrepreneurial ones offer wholly new products, processes, or services. As such, Cantillon (1755) considered entrepreneurs risk takers dealing with uncertainty in order to maximize financial return (Brewer, 1992). There has been much written about the field of entrepreneurship across the centuries. Schumpeter (1936) highlights creative innovation as the seed of new goods, methods or process, and restructuring of markets; his notion of creative destruction encapsulates an understanding that entrepreneurs shift the production-possibility curve to higher levels through innovations.

In the 21st century, authors began point to the opportunity nexus where individuals identify and act on opportunities (Shane and Venkatraman, 2000). Entrepreneurship has also been referred to as the coordinating power of the factors of production including labor, capital, and organization across individual, instructional, and economic domains (Raynolds, 2002). Meanwhile, other perspectives suggest the development of society is in part based on marginal groups with room for creative adjustment bringing about innovations (Shane, 2003). Overall, entrepreneurship can be seen as the creation and extraction of economic value with risks beyond those encountered with traditional businesses. Multiple theories of entrepreneurship point to the

profit motive as the primary driving force that enables entrepreneurs to discover profitable opportunities while also highlighting the uniqueness of entrepreneurs as creators and innovators in driving change or disruption. To that effect, this dissertation has explored the extent to which musician entrepreneurs fit or do not fit into such classifications with varying degrees of overlap.

There exists a preponderance of music entrepreneurs who may serve as illustrative cases of how artist can traverse the worlds of art and business. In the 12 examples below, a theme emerges whereby individuals begin their careers as musicians and after generating success as artists they establish their own music record label firms or venture out into other entrepreneurial sectors outside of the music industry, showcasing a deeply rooted entrepreneurial spirit.

Table 2: Examples of Music Artist Entrepreneurs

Music Entrepreneur	Notable Achievements
P. Diddy	Developed and produced talent at Uptown Records. Formed Bad Boy Records, Sean John Clothing, Ciroc Vodka, Unforgivable Fragrance, and current CEO to Blue Flame Marketing & Advertising.
Jay-Z	Co-founded Roc-A-Fella Records, sold Roc-A-Wear clothing, owns distribution rights for Scottish vodka Armadale, CEO of Def Jam Recordings, part owner of New Jersey Nets, and launched 40/40 Club in NYC.
Dr. Dre	Rapper turned mogul, Dre formed Aftermath Entertainment label later founding and selling headphone company Beats Electronics to Apple Music.
Sammy Hagar	Frontman for band Van Halen. Opened Cabo Wabo resort in Utah, USA and Cabo, Mexico. Sold 80% share of Cabo Wabo tequila brand and continues to run bars and vacation resorts.
David Bowie	Successful independent artist across many decades. Started a technology company and ISP in the 1990s. Established his own record company, art gallery, and e-commerce website selling artwork created by students.

Table 2, cont.

Bono	Frontman for international band U2, purchased a hotel in Dublin and turned it into a 5-star luxury hotel. Founded Elevation Partners, a private equity firm focusing on IP and media projects. Recently, open the MSG Sphere in Las Vegas, and immersive state of the art multimedia venue.
Victoria Beckham	Part of global pop group Spice Girls. Designer for Rock & Republic, owner of dvb Style specializing in jeans and eyewear. Authored two books and secured a reality TV deal. Launched fragrance, handbags, and jewelry lines in Japan.
Fat Mike	NOFX frontman and founder of Fat Wreck Chords & Bottle to the Ground record labels. Book publisher, lingerie fashion line owner, even promoter, reality show producer, and helped launch international beer & music festival, Punk in Drublic.
Jennifer Lopez	Successful female pop music artist and movie actor, launched J.Lo clothing, accessory, fragrances, jewelry, and children's clothing lines. Opened restaurant Madre in California, and owns company Nuyorican Production shooting TV and film.
Jack White	Frontman for the White Stripes as well as film and television actor. Co-founder of 3 rd Man Records which operates in Tennessee as a music label, music recording studio, vinyl manufacturing plant, and retail storefront. Co-owner of TIDAL streaming offering high quality "lossless" audio files.
Master P.	Founded No Limit Records with various holdings including clothing line, film company, sport management agency, real estate company, and video game development.
50 Cent	Best-selling rapper, actor, and author. Created G-Unit Clothing Company, signed a deal with Rebook for sneaker line distribution, shareholder for Glaceau beverage company, and early investor and marketer for Vitamin Water.

Rea and Volland (2015) distinguish cultural entrepreneurs as those who build a personal brand of creativity, leveraging cultural authority to create and sustain enterprises. However, such cases may be relegated to successful entrepreneurs with contemporary scholars noting that

finding a way to survive while making art is not the same as entrepreneurship. With regards to the purpose of the activity, artists entering the world of art in order to transact or exchange these goods for money do not make art but commodified decorations. While business has the goal of financial returns, according to Aggestam (2007), “there is no goal with art.”

Cultural entrepreneurs instead lie at the crux of music creation and consumption, aspiring to commercialize original and innovative artistic content (Greener, 2019). There is no clear answer from the literature as to whether the demands of managing the music industry environment and applying entrepreneurial traits to artistic careers constrain or enhance such creator’s ability to identify and exploit business opportunities (Gregorie et al., 2015). However, scholarship seems to support the claim that innovative individuals such as artists are imbued with two sets of competencies that make them valuable to organizations: business skills and creative competencies. To be successful however, according to Jack of all Trades theory, musician entrepreneurs must strike a balanced with the types of skills necessary for self-managed careers.

2.10 Hypothesis Development

All in all, Jack of All Trades theory postulates that entrepreneurs are generalists. Those who know all aspects of the business tend to be more successful than specialists who are well versed in a narrow range of competencies and subskills. The central contention is that music entrepreneurs function as generalist utilizing various competencies including business-oriented ones (strategy, networking, opportunity recognition, etc.) and artistic competencies (creative musical ability) in order to unlock success for their cultural goods and products (Lazear, 2004).

Given the nature of music artists’ work, I operationalize several constructs pertinent to musicians around a theoretical framework for competencies (chiefly business, musical, and

creative) together with the relationships associated with various forms of performance outcomes. To best illustrate the complexities inherent to creative production, I apply the previous discussion of Pareto performance in the context of this dissertation's construct operationalization for performance by introducing various traditional and non-traditional measures of success pertinent to a holistic examination of musician entrepreneur outcomes. I proceed to review this dissertation's dependent variable by shifting focus to the topic of performance and the variety of outcomes associated in the creative fields of the music arts.

2.10.2 Performance as a Dependent Variable

Performance in general is a notoriously difficult variable to measure within the field of entrepreneurship as many nascent businesses operate at loss at the onset of their ventures with other key performance indicators and non-traditional measures used in place such as number of employees hired or customer satisfaction ratings used to reflect business growth (Rahman, 2015). For music entrepreneurs, the music industry is riddled with a preponderance of uncertainties concerning the financial performance of musical works which often ranks poorly (Scott, 2012). Pre-digital models of evaluation for music artist used to revolve around live performance opportunities in concerts or festivals, placement on radio charts, sales of recorded works in records, tapes, or compact discs, and industry awards such as Grammys.

However, the digital landscape has transformed previous revenue models in a dramatic manner (Young and Collins, 2010) complicated by the fact that digitalization renders what used to be music record sales into plays generated by individual songs at fractional streaming conversion rates. Spotify plays results in .004 cents per stream while a monetized YouTube play results in .007 cents, with small variations depending on the global region (Caves, 2002). As

such, other measures have come to dominate the performance prediction discourse including appearances on nationwide television, online presence reflecting a dedicated fanbase, and the achievement of milestones such as success in releasing an album on schedule or simply building up a discography of constant releases on streaming platforms (Leender et al., 2015).

Owing to the fact that the Pareto distribution of creative output and rewards is skewed for creative production, and that entrepreneurial performance is difficult to quantify, this dissertation assesses performance from both financial and non-financial standpoints. Since according to Rosen, “A cardinal measure of quality or talent must rely on measurement of actual outcomes” I evaluate performance outcomes for musician entrepreneurs using 4 performance indicators. Constructs for performance reflect self-reported measures across 2 dimensions with 2 factors each. Financial Performance and Operational Performance (Chen 2015; Aydiner, 2019) and Non-Financial Performance and Product Success (Rahman 2015; Hernaus, 2012).

By measuring non-financial performance including product success, this dissertation will be able to meaningfully tap into the performance outcomes of musician entrepreneurs falling outside the categorization of superstars. Because musicians not only face actual challenges in performing financially, but also ideological resistance to thinking of success in business results, the tenant advanced is that competencies are related to different types of performance outcomes that segregate along the competency dimension analyzed. For business competencies the analysis will explore financial and operational performance measures. While for artistic competencies of music and creativity, the analysis will be conducted against non-financial and product success measures. Accordingly, performance variables are set up in a manner that will be sensitive to alternate conceptions of success including non-economic motivations. In the next section, dependent variables are examined as they pertain to the aforementioned performance measures.

2.11 Music Entrepreneur Competencies

Music operates in an industry where investments made on the “right talent” can provide immediate impacts on performance (Vogel, 2004). Talent in this sense refers to both artistic talent and in managerial talent with matching songs and performance with the organization of artists and events that can foster fan discovery and promote sales. In their book, *Music Entrepreneurship*, Dumbreck and McPherson (2015) explain that an artist-manager needs to connect the dots creatively but also command an understanding of the business world. Ordinarily, specialist managers provide what creatives do not possess or know. In the music business, such informational asymmetry can include song right administration, accounting that drives income, record making processes, and practical applications to the market such learning to catalogue, i.e., matching songs or concerts with artists (Dumbreck, 2015).

The individual musician entrepreneur traditionally provides the visage of the music enterprise and with it consumer’s incentive to buy records and concert tickets; however, indicators for success are not only built on musical ability, but just the same on business acumen such as strategic planning (Datta, Knox, and Bronnenberg, 2018). Music artist taking on managerial functions and executive entrepreneurial efforts bring into question what specific competencies are of value in the music business environment and to what extent they are developed by musicians to successfully exploit their creative works on the open market.

The music industry at large essentially represents the shift from external industrial approaches to competitive advantages, towards internal sources as detailed by Barney’s Resource Based View (1991). RBV espouses that competitive advantage derives from internal resources of unique knowledge, skills, and capabilities (Simon and Hitt, 2003). The resource approach

assumes that competitive advantages are unlocked by the possession of rare, valuable, and difficult to imitate resource which musician entrepreneurs function as the creators of brand onto themselves as well as the marketing champions for their work. This positioning is posited to explain why some music players consistently outperform others (Barney and Clark, 2007). One matter found in the literature is that definitions for the individual competencies and capabilities required by entrepreneurs to effect considerable performance levels, are not as straightforward as the strategy literature for firms (Long and Vickers-Lock, 1995). I proceed then to detail in this section the competencies that musician entrepreneurs require in order to achieve competitive advantages. I leverage Jack of All Trades theory with assumptions stemming from Resource Based View in formulating this dissertation's constructs. I transition to the topic with a musical metaphor from Bolden and Gosling (2006).

A competency framework may be considered akin to a music sheet in that through its arrangement, playing and performance, the piece comes to life. Simply being able to read music or play notes (musical competency) does not imbue a musician with the caliber or ability needed to communicate their talent and evoke emotional responses across broad listener bases (Bolden and Gosling, 2006). Contrary to the assumptions underlying competency frameworks, there is neither a linear or necessarily causal relationship between competencies and performance outcomes. Henry Mintzberg (2004) once famously proclaimed, "acquiring various competencies does not necessarily make a manager, competent." Yet, other researchers note that the absence of a competency does not make one incompetent, just the same (McCall, 1998). This tension is perfectly aligned with Jack of All Trades theory which delineates that having general balanced competencies is the prerogative of value for entrepreneurs as opposed to specialized competencies which would fall within the skillset of any employed laborer (Lazear, 2004).

2.11.2 Business Competencies as Independent Variables

Entrepreneurial business competencies have been likened to the “holy grail” of business research (Mitchelmore and Rowley, 2010). Barney (1991) stated that entrepreneurial competencies are key resources belonging to people. People as human capital in turn constitute intangible assets of firms that enable success through observed behaviors more tied to performance than entrepreneurial characteristics such as traits, intentions, or motivations (Bird, 1995). Broadly, scholars suggest various factors may be involved ranging from personal background along the lines of commercial experience, production and marketing experience, entrepreneurial experience, and contact with venture capitalist (Murray, 1996). Equally important are personal qualities such as approachability, ability to engage in risk taking, opportunity identification, and welcoming uncertainty (Martin and Staines, 1994; Mitton, 1989).

Contemporary studies cluster competencies into entrepreneurial behavior dimensions such as Searching, Planning, Marshalling, Implementation of human resources, and implementation of Financial Resources (McGee, 2009). More applicably, Man et al., (2002) identifies several entrepreneurial competencies which once mastered exert positive influence over performance outcomes. Fundamental competencies identified by Man include: Opportunity, Relationship, Organizing, Strategic, and Personal Strength competencies.

YouTube musicians analyzed for self-perceived competencies resulted in the conclusion that many skills related to digital technology including business and entrepreneurial knowledge are ascertained through informal learning methods (Verdu, 2021; Masanet, Guerrero-Pico, and Estables, 2019). A study by Reis, Klein, and Dantas (2020) conducted interviews with 31 Brazilian musicians and business owners, surveying them for 7 entrepreneurial competencies

(Morrison, 2013) finding that entrepreneurial competencies, management skills, and time organization stood out as developmental needs in the South American creative industries. Hence, there is a corpus of literature suggesting that entrepreneurial competencies are needed, but also underdeveloped. While surprising, this does not contradict the claims laid out by Jack of All Trades theory. As such, for this dissertation, I explore entrepreneurial competencies using Man's (2001) constructs as a means for tapping into the business acumen of musician entrepreneurs. The business hypothesis is based on the relationship between competencies, capabilities, and skills in driving firm financial performance and operational performance.

Because business competencies are distinct abilities that allow entrepreneurs to identify, develop, and exploit opportunities and resources (Stevenson and Jarillo, 1990), I advance the hypothesis pertaining to business competency factors and non-financial performance such that opportunity identification will lead to exploitation and rewards for high-risk endeavors. Relationship competencies are also of considerable effect as tapping into networks (social, music industry, local community) can help music entrepreneurs secure additional opportunities for live performances, collaborations, or gig economy work that can help place such entrepreneurs in the right position at the right time. Indeed, the literature suggests having proximity to an investor (such as music industry record label firm) can result in major competitive advantages.

H1a) There is a positive relationship between Opportunity competencies and both financial performance and operational performance.

Organizing competencies are just as impactful to performance given that nascent music entrepreneurs need to coordinate various activities and resources such as human capital (other musicians to perform with) and a variety of procurements including contracting with music venues, technicians such as live audio mixers with sound systems, digital design artists for artwork on posters or merchandise, and even negotiating with manufacturers to coordinate the

creation of other cultural products such as memorabilia in the form of pins, stickers, patches, hats, bottle openers and more. Accordingly, a musician entrepreneur who is able to organize and coordinate resource allocation in such a manner would perform better than one was unable, or unwilling to carry out these functions. Relationship competencies are also vital in forming networks including other musicians, business contacts, as well as music fans or followers online.

H1b) There is a positive relationship between Organizing competencies and both financial performance and operational performance.

H1c) There is a positive relationship between Relationship competencies and both financial performance and operational performance.

As far as strategic competencies, a musician entrepreneur must be able to pivot just like a traditional entrepreneur when faced with market challenges including changes in consumer tastes. Artists are particularly known for rebranding themselves every 7 to 10 years (Carman, 2014). This often entails a strategic change in direction including aesthetics and musical genre. To achieve long lasting success, music entrepreneur high in strategic vision and planning would outperform ones without a plan with which to navigate the music industry's turbulence. Lastly, in order to persevere in the music industry, musician entrepreneurs, much like traditional business entrepreneurs, must have "tough skins" and the fortitude with which to face criticism, accept lackluster performance, overcome years of stagnancy, and supersede the failure of their initial musical projects and endeavors. One hallmark of entrepreneurs is that they do not give up but instead undertake different ventures picking up experience and knowledge along the way. Similarly, a music entrepreneur may fail with a given band or artistic identify, but must have sufficient personal strength competencies so as to not exit the competitive environment.

H1d) There is a positive relationship between Strategic competencies and both financial performance and operational performance.

H1e) There is a positive relationship between Personal Strengths competencies and both financial performance and operational performance.

2.12 Music Artist Competencies

Apart from entrepreneurial competencies, a musician entrepreneur needs to also master technical functions of the artistic role as well (Camuffo, 2012) which for the music sector necessitates the artistic skills of being musical and creative. Tsen (2021) studied the relationship between musicianship (defined as music knowledge, skills, and artistic sensitivity in performance) and core competencies finding a broad array of skills necessary from musical knowledge of harmony, to improvisational playing skills, and written musical theory. Such an argument aligns with RBV's claim that value creation is related to the capability of managers, in our case musician with self-managed careers, in attaining and developing resources (Barney, 1991; Grant, 2010). There is also synergy with Jack of All Trades theory as an entrepreneur would need to be endowed with not only business competencies, but also various artistic competencies, in order to be categorized as a generalist. In the paper "Jazz, Constructionism, and Musical Composition," Hammonds (2015) defines art as intangible and experiential knowledge combining art and sounds to create music, adding that creativity is critical to get beyond mere reproduction of extant work. I next explore the makeup of such artistic competencies as operationalized in this study as fundamentally interlinked with musical and creative dimensions.

2.12.2 Music Competencies as Independent Variables

Musical competencies have been studied from various disciplines such as music education and musical therapy with several scales formally developed towards a measurement of musical expertise. There are several types of criteria including hard and soft musical skills. The music literature notes that the term "competency" has a variable application including skills related to performativity of instruments, explaining music theory concepts, detecting errors, and

more general skills associated with incorporating sonic diversity into songs of good quality (Reifsteck, 1989; Baker, 1981). Soderblom (1982) investigated and identified major musical competencies including singing, music reading, listening, playing instruments, and creative activities. The home musical environment scale of Brand (1985) measures competencies including sound and tonal discrimination, rhythmic and melodic repetition, harmonic progression, tonal synchronization, and emotion recognition of tonal sequences. Such measures were typically assessed by giving participants performance tasks to complete.

Meanwhile, more traditional and foundational explorations of music competencies stem back to the 1960's with essential musical competencies addressing general topical areas such as: Performance in major instrument, improvisation, conducting, composition, analyzing balance, and repertoire (Shambaugh, 1960; Parr, 1967). For the construct of musical competencies, I adapt the survey instrument of Parr (1967) and Bruscia (1981) who operationalized and validated the largest array of musical competencies and from whom most of the subsequent scales were developed. Hence, I forward the following hypothesis concerning musical competencies and performance. The basic tenant is that music competencies on the net will have a positive relationship with nonfinancial and product success performance such that the higher the musical competencies, the greater the talent, which based on Rosen (1985) results in rightward shift to the talent performance curve. I hold this to be true for the aggregated measure of musical competencies and its 7 dimensions.

Music theory can be a rather arcane and diatribe subject matter, but its command can greatly enhance musical creations and their ability to invoke emotions and demand for other works, or inclusion of musical content in other creative productions such as films or commercials. However, it has also been proclaimed that many famous superstar musicians do

not know a thing about music theory, instead creating based on what sounds good or feels right. As such, we predict for a positive relation, but acknowledge that variations in beta could exist such that some performers with low music theory still perform exceptionally well.

H2a) There is a positive relationship between music theory competencies and both non-financial performance and product success.

Performance outcomes are a result of a few consequential factors including the 1) composition of a great piece of music (i.e., the songwriting), and 2) that the composition can be executed in a live setting at a high level of mastery on the primary medium (instrumentally or vocally). The value of a good live music performance is tapped into by the competencies of Performativity and Musicianship, which relate to the nature of performing music in a live setting and the skills associated with the player's talent execution. Hence for musicians to perform well, they must have good musical content and carry through with the successful delivery of its entertainment value. I hypothesize these 3 dimensions of music competencies confer a significant positive relationship with the two performance types ascribed to the artistic domains.

H2b) There is a positive relationship between music Songwriting competencies and both non-financial performance and product success.

H2c) There is a positive relationship between music Performativity competencies and both non-financial performance and product success.

H2d) There is a positive relationship between music Musicianship competencies and both non-financial performance and product success.

Some competencies may be more value adding in different genres such as Jazz where improvisation is a key element. While Jazz is not a lucrative genre with the commercial impact of other genres such as Rock, Jazz players nonetheless are respected for their spontaneous musical technicality which can create unique one-of-a-kind experiences for the players and listeners alike. Relatedly, musical conducting competencies are desirable in music scenes as they help orient the collective musical group so as to function in conjunction, playing "in the pocket"

and with a high fidelity of reproduction approximating the high-quality content found in professional recordings. There are many examples of musical conductors such as the American Jazz player Count Basie who led big bands and orchestras through his understanding of musical blend, harmony, and ability to identify issues and correct players towards a unified sound. These features result in highly specialized music entrepreneurs who sounds just as good live as on recordings, which can sequester listener satisfaction. Thus, I advance hypothesis 2e and 2f.

H2e) There is a positive relationship between music Improvisation competencies and both non-financial performance and product success.

H2f) There is a positive relationship between music Conducting competencies and both non-financial performance and product success.

Contrastingly, in popular (pop) music, high levels of musicianship and improvisation are less desirable and not as commercially viable as generic music with catchy memorable lyrics. Indeed, pop music artist may compose songs, but in live settings are often assigned to the specific function of entertaining crowds through song and dance. For this set of musicians, movement in the form of choreographed dances, and being able to “work the stage” and its prop elements, is a prized virtue with immense entertainment value. Therefore, I advance hypothesis H2g noting that non-financial measures such as product success will also rate on a positive magnitude based on the assumption that most all musician entrepreneurs have a vested interest in being entertaining and delivering their best musical efforts, irrespective of financial gain.

H2g) There is a positive relationship between music Movement competencies and both non-financial performance and product success.

2.12.3 Creativity Competencies as Independent Variables

The concept of entrepreneurship has long held creativity as one of its central values, i.e., the creative process of organizing, managing, and assuming risks in an enterprise (Awodun,

2015). Entrepreneurship thus is also seen as the process of creating something new for consumers and assuming risks and rewards for the creator (Hisrich and Peters, 2012). Creativity and creative thinking styles have been examined extensively in the entrepreneurship literature with creative individuals found to consciously adopt new perspectives and reassemble them in new ways leading to novelty (Holland, 1993). Highly creative individuals also have characteristics which allow them to abandon old ways of thought and venture in new directions leading to productive change (Dul, 2011; George and Zhou, 2001). Studies on creativity in firms has further revealed differences between linear and nonlinear thinking attributes of executives which has been tied to business performance (Groves and Vance, 2014). Scholars equally treat creativity as a precursor to innovation, defining creativity as the generation of novel and useful ideas and innovation as the successful implementation of them (Anderson and Zhou, 2014).

For music entrepreneurs, competitive advantages are the province of unique musical composition (songs or albums of songs) and creativity constitutes a valued competency in generating and outputting not just one but many unique works of art into the market. Constant creative production as such has greater probabilistic potential to “strike a chord” with music consumers while keeping ahead of changing tastes and gatekeeper preferences in order to generate a “hit” which can unlock massive returns for music entrepreneurs (Caves, 2000). Case in point, a recent study ran data on over 3 million songs from 69,050 musician artists and found that the music industry is dominated by hits defined as “highly successful products that garner a disproportionate share of the market” (Berg, 2022).

The majority of creators who produce hits have but one or two in the entirety of their careers, with only small minority like Paul McCartney of The Beatles achieving sustained hits across time (Simonton, 1984). The 2022 study by Berg found that the path to success depends on

the creative diversity of music artist portfolios at the time of their initial hit. Many famous artists have sold portfolios rights for impressive returns; Bruce Springsteen for \$500 million, Bob Dylan for \$300 million, the Red-Hot Chili Peppers for \$140 million, and Neil Young who keenly sold 50% of his rights for \$150 million represent a few notable mentions reflecting the value of a highly creative music portfolio and repertoire creatively spanning different styles (Cross, 2022).

Creativity grants musician entrepreneurs greater opportunity for leveraging past works in changing markets (Berg, 2022). However, other research streams on business success indicate that novelty reduces chances for commercial market success since typical products outperform novel ones which may be too creative for mass markets (Lieu et al., 2017). Taken altogether, this implies a thorny tradeoff for music entrepreneurs who must use creativity for long term success, but face the risk of never achieving a hit due to their works being too creative and lacking mass appeal necessary for commercialization. This reflects the high-risk high-reward nature of the music industry. Berg concludes, “Building a typical portfolio is a safer bet in terms of having at least some success, but the upside is limited as this success may be short-lived.”

In a music market context, creative individuals can be creative across multiple genres of music. Stepping outside the box and thinking laterally is a prominent feature of entrepreneurs which musicians may leverage towards competitive advantages; that is, if musician’s initial musical creations do not work out, music entrepreneurs need to be ready to pivot and generate another musical idea which may better resonate with audiences. Therefore, this dissertation analyzes creativity as a vital component or artistic competencies alongside musical skills. While various scales exist for creativity ranging from Non-Linear thinking (Imaginative, Flexible, Intuitive, Emotional thinking) to Creative Cognition (Idea manipulation, metaphorical thinking,

flow), I employ the ECCI for individuals which focuses on creative expression as a measure of behaviors that include capturing, challenging, broadening, and surrounding (Epstein, 1994).

Generally, to be a musician entrepreneur individuals must by definition poses musical competencies in their primary instrument or modicum of expression (songwriting, singing, dance, etc.). Yet more specifically, to be successful in generating new innovative works of art, creativity is a must. The literature is replete with the application of creativity in measures such as firm innovation. We turn next to the context of creativity to help us better understand the nature of artist musician entrepreneurs and the competencies they exhibit.

Non-linear thinking derived from cause-effect predictability and nonlinear creative-integrative insights are demanded of musician entrepreneurs to manage the today's music business environment (Groves et al., 2011). Compared to other professionals, the literature points at entrepreneurs deploying intuitive thinking styles while managers prefer more analytical methods to meet demands, activities, and challenges. (Vance and Choi, 2011). While nonlinear thinking is circumscribed by intuition, creativity, and emotional patterns of insight, linear thinking is delineated as more analytical, rational, and logic based. Entrepreneurs in business have been shown to demonstrate both linear and non-linear thought processes to support risk-taking in ventures wrought with obstacles and setbacks. Moments of insight and creativity are thus the result of a synthesis between nonlinear and linear thinking (Mitchell et al., 2000).

Creativity then is characterized by flexibility in generating new perspectives and unconventional problem-solving tactics (Smith et al., 2009). Intuition involves a sense of automatic knowing based on subconscious information and experiences. Insight meanwhile results from incubatory attempts at problem analysis which can spontaneously release

individuals from cognitive rigidity, opening new perspectives and assumptions (Zhang, 2018). Extant models of innovation further link creativity to commercially valuable products, services, and opportunities; specifically, opportunity identification demands creativity in reorganizing features in projecting future possible worlds (Suddaby et al., 2015; Baron and Tang, 2011).

For music artists, creativity and emotion (two salient dimensions of cognition and affect) are inexorably linked in the pursuit of artistic expression manifest in songwriting (Delgado Garcia et al., 2015 Gamble et al., 2019). The experience of affective states such as those felt during romantic pursuits has been the topic of many love songs. Meanwhile emotions such anger or joy can sometimes be better expressed semantically through instrumentation than in prose alone. Note, for example, Ode to Joy by Beethoven as a superlative representation of the human condition (Borgsmiller, 2018). As evidenced, affect can influence cognition, and cognition can influence affect, in a feedback loop manifesting a virtuous or vicious spiral of behavioral activity which creatives operates within (Gregoire et al., 2015; Ayduk and Gyurak, 2008).

The ECCI-I Creativity Competency scale of Epstein (2008) posits for constructs associated with creativity competencies: Creative Capturing, Challenging, Surrounding, and Broadening. The key link belies from the fact that novel products perform differently compared to common products with mass appeal, such that creative competencies may exert negligible effects on financial and operational performance, but exert a positive effect on non-financial measures and product success demonstrated to be predictors for long term success (Berg, 2022).

Regarding creativity, for the music industry creative capturing bears the most relevance to this discussion as it is the primary role of the music artist to capture new musical ideas in the

realm of the abstract and concretize them in a worldly medium such as a vinyl record or mp3 file. The following creativity hypothesis 3a is advanced:

H3a) There is a positive relationship between creative Capturing competencies and both non-financial and product success performance.

Creative challenging is another major charge for the modern musician entrepreneur who must continuously push their creative limits in order to generate new works of art that keep fans engaged and consumer's appetite for new music satisfied. Creative challenging is beneficial within the music industry as it fosters the undertaking of challenging endeavors such as overseeing major productions or coming up with new revenue models to monetize musical works. In line with challenging competencies, creative artists use broadening competencies from a business standpoint to expand exposure to fields outside of their specialty such as an understanding and knowledge of the music industry's business mechanisms. Equally such broadening competencies may help entrepreneurs tackle the learning challenges associated with using new technology such as digital plugins, blockchain, or music AI.

Alternatively, from an artistic purview broadening competencies can help musicians seek new experiences and situations which could serve as inspiration for creative visions that fuel novel takes on recurrent topics in popular music such as the romantic love story or a hero's journey into the unknown. Likewise, creative surrounding can have a similar effect of priming artists to be "in the moment" whether this refers to a catharsis of experience or cognitive fugue state that results in the genesis of groundbreaking work high in originality that may attract niche yet highly devoted fanbases. Creative surrounding as well can take the form of musicians surrounding themselves with other music artists towards creative collaborations. Hence, I put forward hypothesis 3b, 3c, and 3d relating to creativity and artistic performance measures.

H3b) There is a positive relationship between creative Challenging competencies and non-financial performance and product success.

H3c) There is a positive relationship between creative Broadening competencies and non-financial performance and product success.

H3d) There is a positive relationship between creative Surrounding competencies and non-financial performance and product success.

2.13 Digital Acceptance and Musician Entrepreneurship

Finally, this study has argued at length that in the wake of digitalization, new technologies have made the tools of production ever accessible to musicians who as entrepreneurs are driven to create novel products, deliver them to markets they help shape, and reap in the rewards therein. This is partially possible due to a shift in consumer preferences from physical goods to an imbrication of digital and virtual artefacts such as NFTs (Beer, 2008).

Digitalization's displacement of intermediaries occurs through an elimination of production costs such as packaging and shipments. Equally, the costs associated with recording music are lowered due both in part to the efficacy of budget friendly home studios and reduced time and effort in production processes (Byrne, 2007). Thirdly, digital platforms allow interactions with audiences and other musicians making for low costs transaction models that musicians can experiment including digital collaborations, paid for content for subscriber fans, or offering exclusive access to privileged information (Anderson, 2006).

Altogether, there has been a massive structural change effected by digital adoption and acceptance of technologies for music creation, distribution, and marketing whith digital formats diving costs to near 0 (Morris, 2013). The basic claim is that digital acceptance helps musicians improve their performance by strengthening the relationships between competencies and performance outcomes; i.e., moderation. While primarily a function of lowered costs, it is also

the consequence of being able to achieve economies of scope and scale with resources freely available. Musicians have seemingly unlimited potential with software as compared to analog recorders with a caps on disposable channels. What's more, musicians actually take advantage of new possibilities as they are free to explore new soundscapes vs. following industry standards.

I hypothesize that a positive moderation will take place between digital adoption and the relationships between business competencies and financial/operational performance measures, as well as for music and creative competencies and nonfinancial/product performance measures. I anticipate that digital acceptance may produce a stronger effect for artistic competencies (music and creative), than for business competencies and financial performance, as non-financial measures are not contingent on industry level phenomena such as Price's Law. Accordingly, the following hypothesis regarding digital acceptance are set forth:

H4) Digital acceptance will positively moderate the relationship between business competencies and financial/operational performance.

H5) Digital acceptance will positively moderate the relationship between music Competencies and non-financial/product success performance.

H6) Digital acceptance will positively moderate the relationship between creative competencies and non-financial/product success performance.

2.14 Research Model

In accordance with the constructs and hypothesis advanced, I advance the following research model and proceed to test the primary relationships, explore control variables, and tests for moderating effects of digital acceptance, this study's proxy measure for digitization. Altogether, this dissertation and the corresponding research model seeks to asses 16 competencies across 3 major domains for 4 distinct performance types.

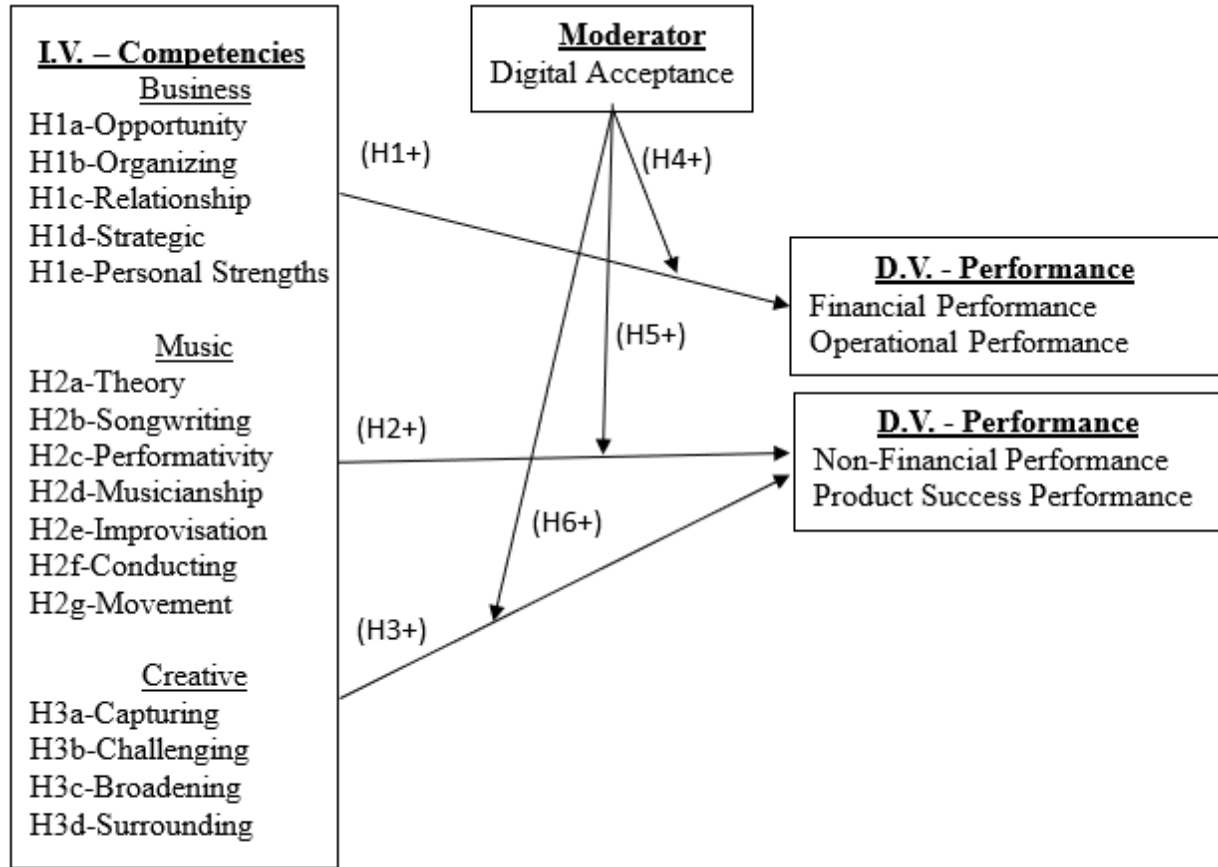


Figure 5: Theoretical Research Model

CHAPTER III

METHODOLOGY

3.1 Study Design

In this chapter the methodology employed assess how the interplay of musician entrepreneur competencies (including business and art specific ones) translate to performance across financial and non-financial dimensions is established. Equally important to this study's central thesis is an assessment of the moderating role of digitalization which is operationalized using multidisciplinary perspectives from the information systems (IS) literature as digital adoption. For this dissertation, I explore musician's self-reported competencies and performance outcomes by deploying a survey questionnaire on the crowdsourcing platform Prolific utilizing a convenience sampling design (Flynn et.al, 1999; Palan and Schitter, 2018). Prolific is an established platform for online subject recruitment specifically catering to researchers and often compared to M-Turk (Peer et.al, 2017).

The target population of musician entrepreneurs is unique in that it consists of varying types of musicians at different "entrepreneurial" stages of their artistic careers; i.e., working class musicians not yet "rich and famous." Of interest, Prolific allows researchers to select for participants with pre-established criteria such as users of digital platforms and social media sites including Spotify, YouTube, Facebook or Instagram where diverse content is published to varying degrees of commercial success. This contextual approach allows this study to pierce the

veil of industry and analyze through a survey methodology the competencies held by music entrepreneurs, reported performance levels, alongside digitization factors of digital acceptance for moderation testing of the hypothesized relationships.

To analyze the link between musician entrepreneurs and competency factors associated with performance in the music business, this study deploys a survey instrument questionnaire to 232 artist musicians through Prolific, a “research quality” analogue of MTurk via Amazon (Turner and Tollison, 2021; Fujimoto, 2014; Lee, 2010; Oh and Wang, 2012). Research designs including musicians working survey task jobs on crowdsourcing platforms such M-Turk has observed support from music mood research (Oh and Wang, 2012). The questionnaire taps into the multiple competency domains ranging from entrepreneurial to artistic competencies, and four perceived performance measures including financial and non-financial characteristics.

For participation in the study, two levels of criterion selection were embedded. The 1st criterion occurs at the platform level where users can be targeted based on pre-defined attributes. The 2nd qualifier is included in the introductory portion of the questionnaire itself where an item specifies that respondents must have published music available on the streaming platform such as Spotify and a social media account for validation.

This dissertation’s research question fundamentally explores the business and artistic competencies that music entrepreneurs’ poses and the relationship of these to different kinds of performance outcomes. Digitalization is likewise evaluated from a digital adoption standpoint given the assumption that adopting digital resources will moderate relationships studied. Accordingly, I explored various competencies scales available in the literature along major 5 dimensions including entrepreneurship, musical, creativity, digital, and performance.

3.2 Survey Instrument Variables and Measurement

As reported in Chapter II, the major domains of constructs were identified by applying Jack of All Trades theoretical lens on the competencies held by musician entrepreneurs. An exhaustive search revealed no comprehensive survey instrument in the literature. Existing scales inspired the construction of a new survey questionnaire with minor wording changes implemented to be in agreement with focal topic of musicians and concordant scales. In the next section, the construction and development of the instrument and respective measures is summarized for independent, moderating, and dependent variables.

3.2.2 Explanatory Variables

Questionnaires related to entrepreneurship were vast and included those for entrepreneurial intention (Linan and Chen, 2009; Bolton and Lane, 2019), gestation (Racuh and Hulsink, 2015), self-efficacy (McGee, 2009), orientation (Matsuno, 2002; Morris and Sexton, 1996), and entrepreneurial competencies (Man, 2001). For the methodology, I use the Entrepreneurial Competencies from Man 2001. Scales such as those for entrepreneurial Intention, Orientation, and Gestation were deemed non-applicable as they measured antecedents while Man 2001's measures for entrepreneurial competencies were amongst the most cited and used in subsequent publications. This survey instrument provided the broadest level of analysis including 5 applicable factors ranging from opportunity recognition, relationship building, organizing, strategic, and personal strength competencies. For this study, I adapted the language so as to be applicable to musician entrepreneurs including Opportunity Competencies (Sample Item: Evaluate the advantages and disadvantages of potential music business opportunities), Relationship Competencies (Sample item: Develop long-term trusting relationships with others

in the music community), Organizing Competencies (Sample item: Delegate music business work and coordinate tasks effectively), Strategic Competencies (Sample item: Redesign the artist and/or band to better meet long-term objectives and changes), and Personal Strength Competencies (Sample item: Motivate self to function at optimum level of performance and maintain a high energy level).

Musician entrepreneur's principal identify consist of their musical abilities in the form of playing an instrument (guitar, piano, drums), singing and/or harmonizing vocally, live performance abilities, along with veritable combination of these. The majority of the literature regarding music competencies comes from a few academic veins including music therapy and music education, with musical competencies being largely empirically unexplored in the business or entrepreneurship literature despite a preponderance of conceptual and qualitative papers promoting business education amongst cultural workers. Scales identified included Music Competencies related to reading, listening, and playing (Jansen, 1999; Shambaugh, 1960; Soderblom, 1982), Music Teaching Competencies pertaining to sound discrimination and repetition, (Reifsteck, 1980), and Music Foundations (Parr, 1967; Goodman, 1985; Bruscia, 1981) which addressed hard and soft musical criteria ranging from technique, to group dynamics, and performativity in a live performance medium.

The most robust of these comes from Parr (1967) containing several factors adopted and expanded upon in the music education literature. I thus adopted and combined Parr (1967) and Bruscia (1981) resulting in 7 broad dimensions to promote generalizability: Music Theory (Sample item: Ability to use the technical vocabulary and terminology of music and ability to use the symbols of music fluently and accurately.), Composition Arrangement (Sample item: Ability to compose songs with simple accompaniments), Performance Medium (Sample item:

Ability to construct and recognize well balanced music set lists for different occasions and types of performances.), Musicianship (Sample item: Ability to recognize and identify rhythmic and melodic patterns, both aurally and visually, when performing music), Improvisation (Sample item: Ability to invent and develop original melodies, accompaniments, and short pieces extemporaneously in a variety of moods and styles, vocally and instrumentally), Conducting (Sample item: Ability to analyze errors and assist performers in correcting them), and Movement (Sample item: Ability to execute on musical gestures, body posture, and body language).

As part of this study's operationalization of artistic competencies for music entrepreneurs, various subscales associated with creativity were reviewed including those for Creative Competency (George and Zhou, 2001), Creative Cognition (Rogatem, 2015; Miller, 2014), Linear and Non-Linear Thinking (Groves and Vance, 2014), and Creative Expression (Epstein, 1996 and 2009). The Creative Expression scale of Epstein is part of the ECCI, Epstein Creativity Competency Inventory for Individuals, and was used in a variety of studies across disciplines including business and education.

Verbiage was modified so as to pertain to musicians. As musician entrepreneurs are not just creative in traits, but actively express their creativity through cultural products (songs and videos), this survey was deemed the most applicable and well established. The scale comprised of 4 factors Capturing (Sample item: I always record my new ideas as they occur to me), Challenging (Sample item: I sometimes try to solve problems that, in principle, have no solution), Broadening (Sample item: I regularly surf the Internet to expand my knowledge), and Surrounding (Sample item: I sometimes seek out unusual combinations of people to help stimulate my thinking).

Moderating variables affect the degree and form of the relationship between independent and dependent variables (Arnold, 1982). To measure the hypothesized effects of digitalization, several scales associated with digitalization and digital technology use were identified including the Digital Orientation Scale (Fengel, 2002), Digital Technology Adoption (Lazear and Pnnisora, 2019), Digital Mindset (Hilderbandt and Deimborn 2022), and the Digital Intent and Adoption (Kwon and Park, 2008). The Digital Intent and Adoption Scale was the most comprehensive including 7 factors from 5 major studies (Dabholkar, 1994; Taylor and Todd, 1995; Lazear and Panisora 2019; Davis, 1989; Kwong and Lee, 2002).

Bibliometric research surrounding Technology Acceptance Model (TAM) by Sun and Zhang (2006) indicates that digital attitude and digital behavioral intent are the two digital factors most supported as having a direct association with actual use of digital resources. Other factors were cited as having antecedent relationships falling outside the scope of this study. Therefore, for the purposes of this paper, I operationalize digitalization as Digital Acceptance by aggregating Digital Attitude and Digital Behavioral Intent. For the purposes of the study at hand, the relevant 2 digital factors were applied including Attitude (Sample Item: I would describe digital music tools as improving daily and working life) and Behavioral Intention (Sample item: I anticipate myself to use digital music tools in the next three months).

3.2.3 Response Variables

Because both cultural products such as songs or albums and associated entrepreneurial effort do not always translate in terms of return on investment, I operationalize performance under both traditional and non-traditional measures of performance totaling 4 factors. Obtaining objective data on performance measures continues to pose challenges in

empirical research; often, and particularly in the case of entrepreneurship, the data is unavailable to the public (Swamidass and Newell, 1989; Dess and Robinson, 1984). Employing multiple data elements allow assessment of method convergence (Venkatraman and Ramanujam, 1986), which is useful in reducing the potential for introducing bias. Music entrepreneur performance as such was measured by collecting four types of self-reported performance data with business competencies associated to financial and operational performance, while artistic competencies were assigned to non-financial and product success performance categories.

For this dissertation, I adopt the questionnaire instruments of Rahman (2015) and Hernaus (2012) for Financial Performance (Sample item: This artist/band has been observing overall growth) and Non-Financial Performance (Sample item: We retain existing music consumers/fans and manage to attract new ones). For business performance (Hernaus, 2012; Chen, 2015), I also adopted Operational Performance (Sample item: To what extent the artist/band has achieved, with respect to major competitors, return on capital employed and labor costs). As another non-traditional measure of non-financial performance (Workman, 2014), Product Success measurement was undertaken using existing survey scales with modification to the verbiage to better correspond with the focal topic (Sample item: Relative to your artist/band objectives for this musical project, this musical project is very successful in terms of listener/fan satisfaction). Altogether these 4 measures provide for adequate testing of dependent variables.

3.2.4 Standard Controls

To ensure robustness of the results, several standard controls were administered as part of the demographic variable set. Demographics collected include: Gender, Age, Education Level, Ethnicity, Employment, Income, and Artist Status. Of these, Gender, Age, and Education Level

were selected as control variables due to their impact of entrepreneurial success through accumulated life experience and increased confidence in business investments (Forbes, 2005; Honig and Karlsson, 2004). Additionally, owing to the uniqueness of the target population and music artist's innate proclivity towards social acceptance, the survey questionnaire also included Marlowe-Crowne's "short" social desirability (SD-13) scale (Sample item: I sometimes feel resentful when I don't get my own way).

When survey length or administration time is limited, a brief measure of the artifact is helpful (Crowne and Marlowe, 1964). The social desirability scale mitigates the desire to boast and look good in responses provided on surveys which is considered perhaps the most pervasive artifact in social and clinical research (Greenwald and Satow, 1970). The SD-13 applied runs on a binary True or False scale and includes several reverse scored items. Per the SD-13 administration procedure, respondents are assigned a social desirability score based on answers to the questions resulting in social desirability scores between 0 and 13. The scores measure how likely a respondent is to give answers that sound good instead of answers deemed to be true. Those with especially high social desirability ratings obtain them by answering in ways that exaggerate good qualities while minimizing bad ones which can lead to biased self-reports.

The implementation of these demographic and social desirability variables help the study control for non-relevant factors that may influence statistic results of the analysis.

Table 3: Construction of Survey Instrument and Variable Definitions

	Construct	Source	Type	Domain definition
	Financial Performance	(Rahman et al., 2015)	D.V.	Subjective measure of how well assets can be used to generate revenues
	Operational Performance	(Chen, 2015)	D.V.	How efficiently and effectively a business executes internal processes.
	Non-Financial Performance	(Rahman et al., 2015)	D.V.	Quantitative measures that cannot be expressed in monetary units.
	Product Success	(Workman, 2004)	D.V.	Effectiveness and impact of an item or service within the market.
	Business Opportunity	(Man, 2001)	I.V.	Recognizing & developing market opportunities through various means
	Business Organizing	(Man, 2001)	I.V.	Organization of human, physical, financial, and technological resources
	Business Relationship	(Man, 2001)	I.V.	Person-to-person or individual-to-group based interaction skills.
	Business Strategic	(Man, 2001)	I.V.	Setting, evaluating, & implementing short and long-term strategies.
	Business Personal Strengths	(Man, 2001)	I.V.	Qualities that enhance personal effectiveness; e.g., self-motivation, etc.
	Music Theory	(Bruscia et.al, 1981)	I.V.	Broad understanding in music domains of harmony and counterpoint.
	Music Songwriting	(Goodman, 1985)	I.V.	Skills of creating compositions and writing melody examples.
	Music Performativity	(Bruscia et.al, 1981)	I.V.	Skills for public and stage performance practices.
	Musicianship	(Parr, 1967)	I.V.	Skills of technique, instrumental performance, and accuracy of tone.
	Music Improvisation	(Bruscia et.al, 1981)	I.V.	Skills for improvisation between various styles & interpretations.
123	Music Conducting	(Parr, 1967)	I.V.	Skills of reading sheet music and leading ensemble in performance.
	Music Movement	(Bruscia et.al, 1981)	I.V.	Skills of body posture and body language.
	Creative Capturing	(Epstein, 1996)	I.V.	Preserves new ideas as they occur; habit of for sourcing ideas.
	Creative Challenging	(Epstein, 1996)	I.V.	Takes on difficult tasks, sets open-ended goals, manages failure well.
	Creative Broadening	(Epstein, 1996)	I.V.	Seeks training, experience, and knowledge outside area of expertise.
	Creative Surrounding	(Epstein, 1996)	I.V.	Changes environments regularly seeking unusual stimuli combinations.
	Digital Attitude	(Kwong & Lee, 2008)	Mod.	Defined as a person's general feeling of favorableness for that behavior.
	Digital Behavioral Intent	(Kwong & Lee, 2008)	Mod.	The sum of attitudes towards a behavior and decision to act upon it.
	Digital Acceptance	(Sun and Zhang, 2006)	Mod.	Use of digital tools to extent it will help users better perform their jobs.
	Social Desirability-13	(Fischer, 1993)	Ctrl.	Tendency for people to present themselves in a favorable fashion.
<i>Note:</i> D.V. as dependent variable; I.V. as independent variable; Mod. as moderator; Ctrl as control variable.				

Table 4: Overview of Musician Survey Instrument and Sample Items

Construct	# of items	Sample item
Financial Performance	4	Profits are increasing for my music goods and services (merchandise, recordings, live performances, etc.).
Operational Performance	5	As a music artist I achieved market growth in the last 3 years (increased plays, followers, concert attendees, etc.
Non-Financial Performance	5	As a music artist, I have obtained listener/fan trust and confidence.
Product Success	5	Relative to objectives for my last music project, I was successful in terms of listener/fan satisfaction.
Business Opportunity	5	I evaluate the advantages and disadvantages of potential business opportunities in the music industry.
Business Organizing	5	I organize and motivate musicians, team/crew members, and others in my music community.
Business Relationship	4	I build and use networks in the music community and maintain a personal network of music business contacts
Business Strategic	5	I redesign myself as a music artist to better meet long term objectives and changes in the music industry.
Business Personal Strengths	5	I motivate myself to function at optimum level of performance and maintain a high energy level.
Music Theory	4	My ability to recognize tonal idioms such as diatonic, chromatic, pentatonic, modal, and others.
Music Songwriting	4	My ability to compose songs with lyrics and simple music accompaniments.
Music Performativity	5	My ability to perform music in small and large groups.
Musicianship	5	My ability to lead the development of music concepts.
Music Improvisation	5	My ability to improvise in small groups.
Music Conducting	5	My ability to analyze errors and assist musicians and performers in correcting them.
Music Movement	5	My ability to execute on musical gestures, body posture, and body language.
Creative Capturing	4	I always record new music ideas as they occur to me.
Creative Challenging	3	When I set goals for myself, I make sure they're ambitious and open-ended.
Creative Broadening	3	I'm not afraid to learn new things.
Creative Surrounding	5	There are special places where I go to think.
Digital Attitude	5	I would describe digital music tools as improving my daily and work life.
Digital Behavioral Intent	5	I expect to reuse digital music tools in the future.
Social Desirability	13	I'm always willing to admit it when I make a mistake.

3.3 Survey Procedures

The survey instrument was developed on Qualtrics by adopting existing scales from the literature and modifying the verbiage to fit the music industry context of this study. Also included in the survey were demographic questions and control scale for social desirability. In total, 5 dimensions measured 3 competencies including Entrepreneurial Business competencies (Man, 2001), Music competencies (Parr, 1967), Creative competencies (Epstein, 2009), as well as Digital Acceptance (Kowing and Park, 2008), Financial/Operational Performance, and Non-Financial/Product Success Performance, (Rahman, 2015; Hernaus 2012). The musician survey totaled 156 questions, including 6 attention checks, with a completion time estimated between 20 to 30 minutes. Lengthy surveys pose methodological challenges with data gathering; yet the robustness of the questionnaire in addressing our hypothesis outweighed the risks.

3.3.2 Target Population

Logic rules were built into the Qualtrics survey requiring the consent page to be agreed upon and the eligibility criteria to be selected for as Yes (Eligibility: Is your music, or music you contributed to, available on streaming platforms such as Spotify, or will your music become available for streaming within the next 12 months?). In the event of “No” being selected, the survey would exit before proceeding into the full questionnaire and the participant was informed they did not meet the eligibility criteria with no Completion code provided to validate payment by Prolific. Other questions were not set up as mandatory, however the logic in Qualtrics was configured so as to generate a response requested prompt in the event of missing entries (e.g., There are X unanswered questions on this page, would you like to continue?). A progress bar was also added atop the Qualtrics survey page to promote advancement through the lengthy

questionnaire. At the end of the debriefing statement, a Prolific Completion Code was provided to respondents; however, metatags were also turned on to record session prolific IDs within the Qualtrics submission, allowing for straightforward pairing of data and completion validation. These Qualtrics safeguards helped ensure respondents were properly vetted with thorough submissions. The Qualtrics survey was then linked to Prolific via external study link URL.

Specific measures were undertaken on the platform Prolific to target the appropriate population of musicians. Compatibility modes were turned on in order for participants to be able to complete the survey via mobile, tablet, or desktop computer. Participant location was open to all countries available under a distributed standard sample data collection model which yielded 120,413 matching participants active during the past 90 days of April 2023. To narrow the search, participants were prescreened with three screener criteria. Criteria 1 for Experience with musical instruments specified “Do you play a musical instrument, if so for how many years?” Selecting for all year options excluding “No, I don’t play a musical instrument” resulted in 14,090 potential participants. Criteria 2 for type of musical instrument(s) asked “What musical instrument(s) do you play?” Selecting all major and minor instruments to better target musicians reduced the eligible participant pool to 12,660. Criteria 3 for Music Streaming Services inquired “What music streaming services do you use regularly” for which “Spotify” was selected from a list of 10 streaming platforms. This final screener limited survey availability to 9,228 participants, or 7.7% of active Prolific users within the past 90 days.

3.3.3 Sample Size

To establish power requirements, the population size was established referencing the U.S. Census Bureau which published figures upwards of 24,000 musician and singers in 2020.

However, as no effect sizes were available from prior research, a power analysis was conducted based on accepted assumptions for small to medium effects (Hintz, 1993). Based on the sample size projected and the number of items in the scale, I applied recommendations for sample size estimates from Roscoe (1975) and Krejci and Morgan (1970) resulting an estimated minimum sample size of 180 replies, or maximum of 800, to satisfy established power standards. A sample size of 230 was deemed adequate by the statistical modelling software G*Power 3.1.9.4 allowing the statistical analysis to successfully tests the hypothesis at a power equal to .99, helping to avoid Type I or Type II errors (Kerlinger, 1985). After reviewing pay structures and budgetary consideration on Prolific, a final target sample size of 232 musicians was established.

3.3.4 Data Collection

A brief description of the study was provided in the Prolific description: “In this survey, musicians will be asked questions about their skill sets ranging from business competencies, creative behaviors, musical knowledge, and use of digital resources such as DAWs, digital instruments, streaming platforms, and social media sites. This survey also explores associated performance outcomes for music related projects, contributions, and activities.” Upon launching the survey, the informed consent page provided additional details as well as ensuring anonymization of the results, and contact information for the PI and IRB granting board.

For business, creativity, digital, and performance constructs, respondents were asked to indicate their level of agreement with the respective items on a 5-point Likert scale: (1) Strongly Disagree, (2) Somewhat Disagree, (3) Neither Agree nor Disagree, (4) Somewhat Agree, (5) Strongly Agree. For music competencies, respondents were asked to indicate their skill level on a 5-point Likert scale as follows: (1) Far below average, (2) Somewhat below average, (3)

Average, (4) Somewhat above average, (5) Far above Average. Meanwhile, the Social Desirability scale included reverse coded items on a binary scale coded True (1) or False (0). Attention checks were implemented throughout the questionnaire to maintain engagement and verify high quality responses. As studies have shown that providing a valuable piece of information can be a good lure and generate good will amongst participants and their peer networks, the survey debrief concludes with a list of recommended readings on music industry and entrepreneurship topics.

Participants on Prolific are paid according to the estimated completion time which if exceeded, requires additional payments. There are minimums established by the platform including a max time of 87 minutes and minimum reward of \$8.00 per hour. As such, the musician survey was set up for a completion time of 30 minutes with a reward of \$4.00. The musician survey was published and deployed on Prolific running from April 2023 to May 2023 until 232 completions codes were received and verified. The median time to complete was 21:49, or just under 22 minutes, resulting in an Average reward per hour of \$11.04 per the Prolific analytics dashboard. Overall, 651 entries were evaluated with the breakdown as follows: 232 responses approved, 373 returned, 28 rejected, and 20 timed out.

Returned evaluations were those in which the participant exited the survey, likely due to not meeting criteria specified in the questionnaire or deciding not to go through with completion of the survey, but returned to the site to instead review other survey opportunities. Meanwhile, the rejected surveys reflect questionnaires submitted by the participants but rejected by the primary investigator (PI) for failing to meet requirements such as not providing a completion code as evidence of answering the full questionnaire, completing the survey in too short of a time frame, missing attention checks, having multiple submissions under the same prolific ID

metatag, or having suspect answer patterns. The data on Prolific was crosschecked against metadata in Qualtrics when making any rejection determinations. In total, participation of Prolific amount to a respondent rate of 35.64% (232/651) which is typical and satisfactory for the purposes of this dissertation. Given the nature of the crowdsourcing, the threat of non-response bias which can distort the reliability of the data was circumvented.

While obtaining archival data from surveyed musicians would be ideal in estimating performance outcome effect sizes such as numbers of plays/streams or fans/listeners, linking participants to archival data would require respondents to enter identifiable information such as links to their social media page or streaming content. Such information sharing was determined to be against the Prolific platform's policies and rules regarding anonymity, identification, and right to privacy.

Accordingly, an optional text entry question was implemented at the beginning of the survey encouraging users to enter a hyperlink to where we could hear their music. Of the 232 respondents, 174 provided an external link with the breakdown as follows: Spotify 28.9%, YouTube 17.7%, Instagram 11.6%, Soundcloud 6%, Facebook 2.6%, LinkTree 2.2%, Bandcamp 1.3%, Tik Tok 0.9%, Tidal 0.9%, Other 3.02%, and No Link provided equaling 25% of the total sample size. Of these 58 that did not include a link, some respondents instead entered comments such as: "That is identifying information" or "I prefer not to."

The value of combining archival data for additional performance outcome testing was ill advised as doing so would lower the sample size and introduce unnecessary complexity surrounding the specific platform(s) user base and monetization method, which lies outside the scope of this dissertation.

3.4 Analysis of Measures

Together with the survey instrument's measures of Business, Music, and Creativity Competencies, Digital Acceptance, and Performance, a thorough enough data set was obtained to test the various hypothesis advanced. While multiple demographic elements were collected, controls only included Education level, Social Desirability, Age, and Gender. An analysis of measures follows to address concerns over validity or reliability of the data.

3.4.2 Demographics

Respondent demographics revealed a high proportion of men (70.3%) as compare to women, a majority of musician (44.8%) landed in the age bracket 24-34, average education indicated the majority of participants holding a Bachelor's degree (44.4%), and ethnicity questions revealed a predominately White (46.6%) participant base which was followed by Black or African American (24.14%) and Hispanic or Latino (23.7%).

Approximately 46.9% of musicians reported to be Employed full time while 17.7% answered Self-employed. Of the respondents, 37.9% fell in the income bracket of \$10,000-\$50,000. The sample was noted as being primarily represented by a self-reported music artist status of 67.2% Unsigned Independent, 20.7%, Unsigned Other, 9.05% Signed Independent, and 3.02% Signed to a Major Label.

The demographic breakdown of respondents appears in Table 5 further detailing the various demographic profiles, categories, and respondent composition. The sample was deemed an accurate tapping into the target population and generalizable enough to represent a population of musicians with entrepreneurial attributes.

Table 5: Demographic Breakdown of Prolific Respondents

Demographic Profile	Category	Respondents	Percent %
Gender	Male	163	70.30
	Female	69	29.70
Age	18-24	68	28.88
	24-34	104	44.83
	35-44	40	17.24
	45-54	16	6.90
	55-64	4	1.72
Education	High School or GED	49	21.12
	College or Associates	40	17.24
	Bachelor's Degree	103	44.40
	Graduate Degree	38	16.38
	Other	2	.86
Ethnicity	White	108	46.55
	Black or African American	56	24.14
	Hispanic, Latino, or Spanish	55	23.71
	Asian	5	2.16
	American Indian or Alaska Native	1	0.43
	Other	7	3.02
Employment	Employed Full Time	109	46.98
	Employed Part Time	29	12.50
	Working Multiple Jobs	17	7.33
	Self-Employed	41	17.67
	Unemployed	28	12.07
	Other	8	3.45
Income	Less than \$10,000	52	22.41
	\$10,000 - \$50,000	88	37.93
	\$50,000-\$100,000	58	25.00
	\$100,000-\$150,000	16	6.90
	\$150,000-\$200,000	5	2.16
	Over \$200,000	6	2.59
	Other	7	3.02
Artist Status	Signed, Independent Label	21	9.05
	Signed, Major Label	7	3.02
	Unsigned, Independent	156	67.24
	Unsigned, Other	48	20.69
<i>Note: Sample size N = 232</i>			

3.4.3 Factor Analysis, Reliability, and Validity

There are multiple validity concerns surrounding survey research (Kerlinger, 1985). In this section, I briefly touch base on these issues (randomization, common method variance, bias, etc.) to elucidate the strength of the study design and applied methodology. Construct validity is defined by Bernard (2000) as, “A close fit between the construct it supposedly measures and actual observations made with the instrument.” Factor analysis is performed in order to measure the unidimensionality of factors belonging to a construct (Cortina, 1993). The survey data was thus subject to a confirmatory factor analysis to assess the factor structure of the variables and estimate how well the data fits the intended constructs to evaluate the overall validity of the questionnaire (Nunally and Bernstein, 1994). The statistical program IBM SPSS was used for these purposes and in all subsequent statistical analysis.

The factor analysis was run via SPSS using the extraction method: principal component analysis. Factor loadings were selected for ($>.5$) after varimax rotation with Kaiser normalization. Items falling below the required factor loading of .5 were critical analyzed 1x1 for potential issues stemming from adaptation of the original scale where changes in verbiage or outdated scale references were found to negatively impact inclusion in the analysis (Cortina, 1993). The remaining survey items were subject to Coefficient alpha (Cronbach, 1951) tests on IBM SPSS assessed on the basis of .6 as the minimum value needed to determine statistical reliability (Eckstein, 2004). With a cutoff value of 0.7, composite reliability (CR) was calculated to provide estimates of internal consistency that were satisfied. Concerning discriminant validity, Average Variance Extracted measures variance from a construct in relation to variance due to measurement error at a threshold of at least 0.50; meanwhile, the square root of AVE may not exceed the intercorrelations of the construct.

Outside of a few Creativity constructs having low Cronbach or Composite Reliability values in the .60s range, values were found with acceptable limits and hence no major reliability or validity issues were established. A single factor Harman test was run to assess the threat of common method effect bias (Podsakoff et al., 2003). All multi-item indicators were loaded onto one factor using a principal axis factoring method without rotation. Results show that a single factor only accounts for 30.06% of total variance which falls below the threshold of 50%. Thus, no risk of CMV was identified. Results are presented below for Cronbach's Alpha (α), Average Variance Extracted (AVE), and Scale Composite Reliability (SCR).

For Business Competencies, all 5 factors of Opportunity, Organizing, Relationship, Strategic, and Personal Strength had loadings above .6 except for item 4 in the Opportunity construct with a loading of .59 that was retained. There were 2 items deleted (B-R5 from Relationship and B-PS4 from Personal Strength) as a result of low factor loadings prompting a closer reexamination of the item. Question B-R5 asks respondents to rate if they create a distinctive image for myself in the music community. The verbiage specifying music community may be ambiguous given differences between online communities and local music scenes and after careful consideration was deleted. For question B-PS4, respondents answered whether they "identify music artist strengths and weakness and match them with opportunities and threats in the music industry." Here the verbiage specifying music industry may have rendered the item inapplicable to musician entrepreneurs who may not consider themselves part of the music industry where signed artist reside, and was therefore also deleted. From the total variance explained statistic output on SPSS, Eigenvalues and Scree plots were deemed adequate with the first factor explaining 43.5% of the variance and total model accounting for 66.5% of the cumulative variance in the extraction sum of the square loadings.

Table 6: Measurement Model for Business Competencies

Construct	Item	Loadings	(α)	AVE	SCR	Deleted Items
Opportunity	B-OP1	0.71	0.84	0.68	0.68	-
	B-OP2	0.71				
	B-OP3	0.77				
	B-OP4	0.59				
	B-OP5	0.64				
Organizing	B-OR1	0.55	0.87	0.71	0.72	-
	B-OR2	0.79				
	B-OR3	0.68				
	B-OR4	0.74				
	B-OR5	0.78				
Relationship	B-R1	0.67	0.84	0.70	0.67	B-R5
	B-R2	0.79				
	B-R3	0.64				
	B-R4	0.72				
Strategic	B-S1	0.73	0.91	0.71	0.73	-
	B-S2	0.74				
	B-S3	0.74				
	B-S4	0.69				
	B-S5	0.66				
Personal Strengths	B-PS1	0.63	0.74	0.67	0.60	B-PS4
	B-PS2	0.72				
	B-PS3	0.72				
	B-PS5	0.62				

For Music Competencies, the 7 factors underwent CFA resulting in satisfactory factor loadings. The lowest factor loadings were item A-MT2 for Music Theory at .5, A-MW5 at .54, and A-MS4 at .53. Two items with low factor loadings were removed after review. A-MT1 for Music Theory specifies, “My ability to analyze the elements, structure, quality, and stylistic characteristics of music from various periods, genres, through audio and visual means” while item A-MW3 for Music Songwriting inquires, “My ability to discuss the timbre, range, and technical possibilities of various instruments.” Both items were inadequately verbose resulting in ambiguity. From the total variance explained, the first factor explained 43.4% of the variance with the total model accounting for 61% of the cumulative variance proving adequate.

Table 7: Measurement Model for Music Competencies

Construct	Item	Loadings	(α)	AVE	SCR	Deleted Items
Music Theory	A-MT2	0.50	0.82	0.73	0.73	A-MT1
	A-MT3	0.79				
	A-MT4	0.74				
	A-MT5	0.88				
Songwriting	A-MW1	0.83	0.84	0.75	0.76	A-MW3
	A-MW2	0.87				
	A-MW4	0.74				
	A-MW5	0.54				
Performativity	A-MP1	0.71	0.86	0.74	0.77	-
	A-MP2	0.73				
	A-MP3	0.75				
	A-MP4	0.79				
	A-MP5	0.73				

Table 7, cont.

Construct	Item	Loadings	(α)	AVE	SCR	Deleted Items
Musicianship	A-MS1	0.63	0.82	0.68	0.68	-
	A-MS2	0.75				
	A-MS3	0.83				
	A-MS4	0.53				
	A-MS5	0.66				
Improvisation	A-IP1	0.71	0.85	0.76	0.80	-
	A-IP2	0.81				
	A-IP3	0.77				
	A-IP4	0.77				
	A-IP5	0.74				
Conducting	A-MC1	0.63	0.85	0.75	0.79	-
	A-MC2	0.72				
	A-MC3	0.83				
	A-MC4	0.75				
	A-MC5	0.81				
Movement	A-MM1	0.84	0.89	0.80	0.86	-
	A-MM2	0.86				
	A-MM3	0.72				
	A-MM4	0.84				
	A-MM5	0.76				

Under Creative Competencies, the first factor explains 30.12% of the variance with the total model accounting for 59.7% of the cumulative variance in the extraction sum of the square loadings. Three items for Creative Capturing, Challenging, and Broadening were deleted due to

issue with syntax resulting in low factor loadings: A-CA1, A-CC1, and A-CB1. A-CA1 states “I only record new ideas when I’m ready to use them” where “record new ideas” may have been mistaken to mean fully record and produce versus simply capture. Meanwhile, A-CC1 reads, “I sometimes try to solve problems that, in principle, have no solution” with the “in principle” verbiage potentially causing issues of interpretation. Lastly, item A-CB1 “I regularly read magazines, books, or other material in a wide variety of subject areas, including those outside my specialty” may be outdated by contemporary standards as musicians no longer read books and magazine when broadening, instead using online resources such as YouTube tutorials.

Table 8: Measurement Model for Creative Competencies

Construct	Item	Loadings	(α)	AVE	SCR	Deleted Items
Capturing	A-CA2	0.65	0.74	0.71	0.68	A-CA1
	A-CA3	0.78				
	A-CA4	0.77				
	A-CA5	0.64				
Challenging	A-CC2	0.83	0.73	0.77	0.72	A-CC1
	A-CC3	0.81				
	A-CC4	0.66				
Broadening	A-CB2	0.71	0.66	0.74	0.67	A-CB1
	A-CB4	0.71				
	A-CB5	0.80				
Surrounding	A-CS1	0.53	0.76	0.65	0.61	-
	A-CS2	0.68				
	A-CS3	0.64				
	A-CS4	0.69				
	A-CS5	0.70				

For the Digital Acceptance moderating construct (Digital Attitude and Digital Behavioral Intent), the first factor explained 49.03% of the variance with the total model accounting for 61.59% of the cumulative variance in the extraction sum of the square loadings. No low loadings were identified and no items were deleted.

Table 9: Measurement Model for Digital Acceptance

Construct	Item	Loadings	(α)	AVE	SCR	Deleted Items
Attitude	D-DA1	0.78	0.82	0.72	0.74	-
	D-DA2	0.72				
	D-DA3	0.76				
	D-DA4	0.71				
	D-DA5	0.64				
Behavioral Intent	D-BI1	0.73	0.86	0.76	0.80	-
	D-BI2	0.77				
	D-BI3	0.81				
	D-BI4	0.75				
	D-BI5	0.74				

Under the four Performance variables, the lowest factor loadings was .56 for Financial Performance indicator P-FP2. Only 1 item was deleted for the financial performance construct P-FP1 which reads, “As a music artist, I have observed overall business/career growth.” The verbiage specifying “business/career growth” may have proven inapplicable to musicians with different conceptions of performance than were expressed in the adapted business language.

Regarding the total variance explained statistics, the first factor explained 45.09% of the variance with the total model accounting for 59.31% of the cumulative variance in the extraction

sum of the square loadings. Eigenvalues for the 4 factors were over 1 with a well-defined Scree plot resulting in the acceptance of the constructs with only 1 item deleted. Overall, the four performance measures proved statistically sound and sufficiently reliable and valid to proceed into the next round of statical analysis.

Table 10: Measurement Model for Music Entrepreneur Performance

Construct	Item	Loadings	(α)	AVE	SCR	Deleted Items
Financial	P-FP2	0.56	0.75	0.70	0.66	P-FP1
	P-FP3	0.83				
	P-FP4	0.76				
	P-FP5	0.64				
Operational	P-OP1	0.86	0.87	0.79	0.85	-
	P-OP2	0.84				
	P-OP3	0.84				
	P-OP4	0.62				
	P-OP5	0.81				
Non-Financial	P-NF1	0.63	0.87	0.80	0.85	-
	P-NF2	0.84				
	P-NF3	0.85				
	P-NF4	0.85				
	P-NF5	0.83				
Product Success	P-PS1	0.73	0.88	0.71	0.72	-
	P-PS2	0.73				
	P-PS3	0.71				
	P-PS4	0.63				
	P-PS5	0.74				

3.4.4 Data Coding Procedure

Based on the results of the factor analysis, items retained were aggregated into the grand mean averages for their respective construct. For the moderation variables, the factors for Digital Attitude and Digital Behavioral Intent were combined into a mean of means average reflecting the construct Digital Acceptance, this study's proxy for the musician's levels of digitalization. The Social Desirability construct required reverse coding and summation in order to form this control variable. Gender was binary coded Female 1, Male 0.

Age was divided into a 5-point scale with multiyear spans (18-24(1), 24-34(2), 35-44(3), 45-54(4), 55-64(5)). Similarly for education level, the scale was construed with "Other" coded 1, going lowest to highest from High School or GED (2), Associates (3), Bachelors (4), up to Graduate Degree (5). To form the interaction variable for the moderation analysis, the independent and moderating variables were mean centered and the product term was created by multiplying the mean centered independent variables with the mean centered moderating variable digital acceptance according to established protocols (Preacher et al., 2006).

3.5 Descriptives and Pearson Correlations

Descriptive statistics (mean and standard deviation) together with correlations between the constructs of interest are provided in table 4.3. Interestingly, Financial Performance had the lowest mean at 3.01 while Non-Financial Performance and Product Success both rated similarly at 3.68 and 3.66. Regarding the competencies under review, for business competencies personal strength averaged the highest at 4.06 while business organizing was the lowest at 3.27. On the musician competency end, many of the measures were similarly averaged between the lowest mean of 3.55 (Music Theory and Music Movement) to the higher averages of 3.66 (Music

Performativity and Musicianship). Creativity yielded more substantial differences with Creative Capturing average 3.35 while Creative Broadening returned a mean of 4.56.

Pearson correlation were carefully reviewed for their significance as well as any correlations over .80. The highest correlation was identified for Musicianship and Music Conducting at .77. Indeed, the music constructs in general had the higher degree of correlation with a few residing in the high 50s or high 60s. Meanwhile, correlations across different competency domains (business, music, creativity) averaged correlations between .25 and .40 reflecting acceptable values. To assess the suitability of the subsequent regression analysis on the target variables, collinearity (i.e., the correlation between independent variables) was explored by examining the variance inflation factor (VIF) in OLS models for statistical values indicative of multicollinearity in the sample (Miles et.al, 2001).

The majority VIF values were below the threshold >2.5 , with only a few constructs exceeding this level. In the business competencies, strategy produced the highest VIF at 2.7. In the music competencies, musicianship, music improvisation, music conducting saw the highest variance inflation factors of 3.8, 3.4, and 3.5 respectively. Creativity measures all fell below 1.8. Irrespective of the higher VIFs, there were no constructs with VIF values between 5 and 10; therefore, multicollinearity was not evident (Hair et.al. 2010; Brace, Kemp, and Snelgar, 2004).

For additional statistical rigor, the lowest tolerance value for business competencies was calculated and found to reside in the Strategy construct with a tolerance of 0.37. For music competencies, musicianship tolerance was the lowest at .27. Overall, tolerance values remained below the generally established values of less than .20 or .10 such that concern was not warranted over the presence of multicollinearity in the models explored (Allison, 1999).

Table 11: Descriptive Statistics and Pearson Correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Financial Performance	3.01	0.90															
2. Operational Performance	3.23	1.00	.68**														
3. Non-Financial Performance	3.68	0.83	.52**	.62**													
4. Product Success Performance	3.66	0.84	.56**	.67**	.61**												
5. Business Opportunity	3.66	0.86	.37**	.50**	.59**	.51**											
6. Business Organizing	3.27	1.04	.51**	.59**	.66**	.52**	.54**										
7. Business Relationship	3.66	0.88	.43**	.46**	.66**	.48**	.56**	.62**									
8. Business Strategy	3.57	0.98	.43**	.66**	.66**	.64**	.67**	.66**	.60**								
9. Business Personal Strengths	4.06	0.68	.34**	.34**	.51**	.54**	.52**	.41**	.52**	.55**							
10. Music Theory	3.55	0.76	.31**	.36**	.45**	.34**	.32**	.45**	.41**	.41**	.29**						
11. Music Songwriting	3.60	0.79	.29**	.35**	.44**	.35**	.37**	.52**	.47**	.47**	.43**	.67**					
12. Music Performativity	3.66	0.73	.35**	.43**	.57**	.50**	.47**	.57**	.50**	.57**	.53**	.57**	.66**				
13. Musicianship	3.66	0.73	.37**	.40**	.49**	.45**	.46**	.54**	.43**	.54**	.51**	.68**	.67**	.71**			
14. Music Improvisation	3.63	0.77	.28**	.35**	.48**	.39**	.31**	.49**	.39**	.49**	.46**	.57**	.73**	.72**	.72**		
15. Music Conducting	3.60	0.78	.36**	.39**	.46**	.44**	.44**	.55**	.48**	.51**	.52**	.59**	.67**	.72**	.77**	.76**	
16. Music Movement	3.55	0.94	.36**	.48**	.53**	.42**	.49**	.54**	.54**	.60**	.49**	.42**	.45**	.52**	.60**	.52**	.59**

Note: Sample size N = 232. * $p < .05$; ** $p < .01$; *** $p < .001$

Table 11, cont.

	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
17.	Creative Capturing	3.35	0.95	.35**	.43**	.42**	.42**	.38**	.50**	.49**	.54**	.42**	.39**	.50**	.38**	.47**	.47**	.51**
18.	Creative Challenging	3.71	0.96	.25**	.20**	.29**	.30**	.32**	.23**	.36**	.28**	.54**	.14*	.22**	.27**	.28**	.30**	.36**
19.	Creative Broadening	4.56	0.54	-.03	.06	.22**	.22**	.28**	.14*	.25**	.22**	.44**	.18**	.27**	.33**	.25**	.32**	.30**
20.	Creative Surrounding	3.86	0.75	.32**	.37**	.44**	.39**	.53**	.48**	.48**	.53**	.47**	.25**	.31**	.47**	.48**	.43**	.53**
21.	Digital Acceptance	4.31	0.57	.07	.15*	.28**	.31**	.29**	.23**	.33**	.34**	.54**	.26**	.38**	.34**	.36**	.33**	.32**
22.	Social Desirability	7.09	2.76	.19**	.17**	.29**	.32**	.27**	.17*	.29**	.21**	.35**	.13	.16*	.22**	.26**	.20**	.23**
23.	Age	2.06	0.95	-.07	-.08	-.06	-.01	-.20**	.00	-.03	-.15*	-.10	-.02	.02	-.01	-0.1	.07	-.03
24.	Education Level	3.54	1.03	.03	.14*	.11	-.00	.01	.16*	.11	.15*	.04	.08	.14*	.18**	.12	.16*	.13
25.	Gender	0.30	0.46	.18**	.16*	.19**	0.12	.26**	.13*	.18**	.16*	.04	.13*	.03	.16*	.16*	.05	.16*

Note: Sample size N = 232. * $p < .05$; ** $p < .01$; *** $p < .001$

Table 11, cont.

	Variables	Mean	SD	16	17	18	19	20	21	22	23	24
17.	Creative Capturing	3.35	0.95	.53**								
18.	Creative Challenging	3.71	0.96	.39**	.27**							
19.	Creative Broadening	4.56	0.54	.24**	.18**	.36**						
20.	Creative Surrounding	3.86	0.75	.63**	.52**	.34**	.34**					
21.	Digital Acceptance	4.31	0.57	.24**	.33**	.22**	.42**	.29**				
22.	Social Desirability	7.09	2.76	.26**	.25**	.34**	.29**	.22**	0.08			
23.	Age	2.06	0.95	-0.1	-0.05	0.04	0.05	-.14*	-0.11	0.03		
24.	Education Level	3.54	1.03	0.09	0.1	-0.01	0.07	0.06	0.01	0.00	.26**	
25.	Gender	0.30	0.46	.24**	.16*	-0.007	0.08	.31**	-0.05	.19**	-0.1	0.02

Note: Sample size N = 232. * $p < .05$; ** $p < .01$; *** $p < .0$

3.6 Ethical Considerations

Ethical considerations are minimized by using survey data in this study. Nonetheless, when addressing certain questions pertaining to business or musical skills, survey respondents may perceive a sense of inadequacy for rating low on certain measures. Therefore, the total number of factors was limited for all dimensions to only those relevant to the study's context. Some items were measure on a future looking basis using a "in the next 12 months" framing. These efforts limit the potential for psychological harm resulting from the survey inquiries.

Questions were randomized throughout the survey interlacing items regarding creativity business and musical skills so as to delimit potential for perceived inadequacy in any one domain or dimension. Each section also included specific language highlighting the purpose of the study and referring to the questionnaire as a poll and general survey, so as to distance away the potential for respondents forming the impression that the survey is an aptitude test. Nevertheless, ethical considerations were taken with due diligence as demonstrated by following principles of parsimony and optional identifying questions.

CHAPTER IV

RESULTS

4.1 Overview

Having established an adequate survey instrument, collected sufficient data samples, and confirmed factor structure, validity, and reliability, the study proceed to the multilinear regression analysis. Altogether, the survey instrument's measures of Business, Music, and Creativity Competencies, Digital Acceptance, and Performance, provides a vigorous model to test the various hypothesis concerning the relationship between Competencies on Performance and the moderating effects of digitalization. The results will help address the study's purposes of assessing what skills are important for musician entrepreneurs to lead self-managed careers.

4.2 Statistical Procedure

In this chapter, the models used to test hypothesis are presented along with the resulting empirical support from statistical analysis of the Prolific musician survey questionnaire. The statistical program IBM SPSS 26 is employed for the purposes of running multiple linear regression models in a stepwise fashion. For all multilinear regression models, the control variables Social Desirability, Age, Gender, and Education Level are introduced in the 1st step. In the second step, competency variables for the dimension in questions were added along with the aggregated mean of means construct for Digital Acceptance. In the third step, the interaction

term calculated from the product of the mean centered independent variable and moderator are introduced. The SPSS output provides measures for unstandardized Beta, Standard error, Standardized coefficient Beta, t-statistic, and significance level.

Alongside the multilinear regression runs, a Model Summary output table provided R, adjusted R square, and standard error of the estimate for the model. An ANOVA test yielded statistics for sum of squares, degrees of freedom, F-value, and the significance of each step in the 3-step model. The base model was then re-run under the alternative performance measure for each dimension, as per established multiple regression protocols (Cohen et.al, 2003). In this manner, 5 business factors were regressed against financial and operational performance to assess hypothesis H1a-e, 7 music factors were regressed against non-financial and product success performance to test hypothesis H2a-g, and 4 creativity factors were regressed against non-financial and product success performance to evaluate hypothesis H3a-d. The resulting outputs allowed us to evaluate the moderating hypothesis for digital acceptance on H4, H5, and H6.

4.3 Business Competencies and Performance

The main effect results of the multilinear regression are presented in the following sections with accompanying statistics allowing the study analyze the moderation hypothesis of Digital Acceptance on the factor constructs for Business (H4), Music (H5), and Creativity (H6). For significant 2-way interactions, interaction effects were plotted using the computational tools for probing interaction effects available online (Preacher, Curran, and Bauer, 2006).

4.3.2 Main Effect of Business Competencies and Financial Performance

Multiple Linear Regression results for Opportunity, Organizing, Relationship, and Strategic business competencies to Financial Performance are presented in Table 12. In the 1st

model, the controls Social Desirability and Gender were statistically significant with a $p < .01$. The 5 business competencies were then introduced in model 2. Hypothesis 1 predicted significant results for all 5 factors in the positive direction. However, only Organizing and Personal Strength competencies were significant with Organizing competencies highly significant ($p < .001$) compared to Personal Strength competencies ($p < .05$).

The magnitude for these two competencies was in the positive direction providing support for H1b, and H1e along the financial performance dimension. Interestingly, the variable Digital Acceptance introduced in model 2 was also found to be significant ($p < 0.01$) but in the negative direction. The standardized beta for Organizing competencies was 0.35 compared to Personal Strengths at 0.18. Model 2 had an Adjusted R-squared of .27 with a statistically significant F-Value of 10.67 indicating good model fit.

Table 12: Results for Business, Digital Acceptance, & Financial Performance

	Model 1	Model 2	Model 3
Intercept	*** (.27)	*** (.46)	** (.48)
Social Desirability	.16** (.02)	.02 (.02)	.00 (.02)
Age	-.07 (.06)	-.04 (.06)	-.03 (.06)
Gender	.14** (.13)	.08 (.12)	.13* (.11)
Education	.05 (.06)	-.05 (.05)	-.05 (.05)
Opportunity	--	-.03 (.09)	-.03 (.08)
Organizing	--	.34*** (.07)	.41*** (.07)
Relationship	--	.12 (.08)	.14† (.08)
Strategic	--	.10 (.08)	.01 (.08)
Personal Strengths	--	.18* (.11)	.25** (.11)
Digital Acceptance	--	-.18** (.10)	-.18* (.11)
Opportunity x Digital Acceptance	--	--	-.03 (.15)
Organizing x Digital Acceptance	--	--	-.24* (.14)
Relationship x Digital Acceptance	--	--	.03 (.14)
Strategic x Digital Acceptance	--	--	-.01 (.14)
Personal Strengths x Digital Acceptance	--	--	.21** (.16)
R-squared	0.12	0.30	0.34
Adjusted R-squared	0.11	0.27	0.30
F-Value	7.89**	10.67***	8.51***

Note: N= 232. Standardized regression coefficients are reported with standard errors in parenthesis.

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

4.3.3 Moderating Effect of Digital Acceptance on Business & Performance

Moderating effects of Digital Acceptance were tested in model 3 with a resultant Adjusted R-squared of .30 and highly significant F Value of 8.51 indicating goodness of fit. Of the 5 interaction terms introduced, Organizing and Personal Strength were again statistically significant. Organizing competencies was significant ($p < .05$) with a standardized Beta of -0.24. Meanwhile, the interaction term for Personal Strength was highly statistically significant ($p < .01$) with a positive Beta of +0.21. Compared to our moderating hypothesis, support was found for hypothesis H4e) and partial support for H4b) which was significant but with a negative relationship to financial performance. The 2-way plots for Organizing and Personal Strength were subsequently generated and are presented in Figure 6.

Figure 6 illustrates the negative moderating relationship between Organizing competencies and Financial Performance with musicians Low in Digital Acceptance having higher Financial Performance at higher levels of organizing competencies. The slope for high levels of digital acceptance was nearly flat at Low and High values of Organizing competencies. Thus, Digital Acceptance dampens the positive relationship between Organizing and Financial Performance. Meanwhile, for Personal Strength competencies, musicians with high levels of digital acceptance experienced higher financial performance at high levels of personal strength. At low levels of digital acceptance and low personal strengths, there was higher financial performance compared to musicians with low personal strengths. Digital Acceptance hence strengthens the positive relationship between Personal Strengths and Financial Performance.

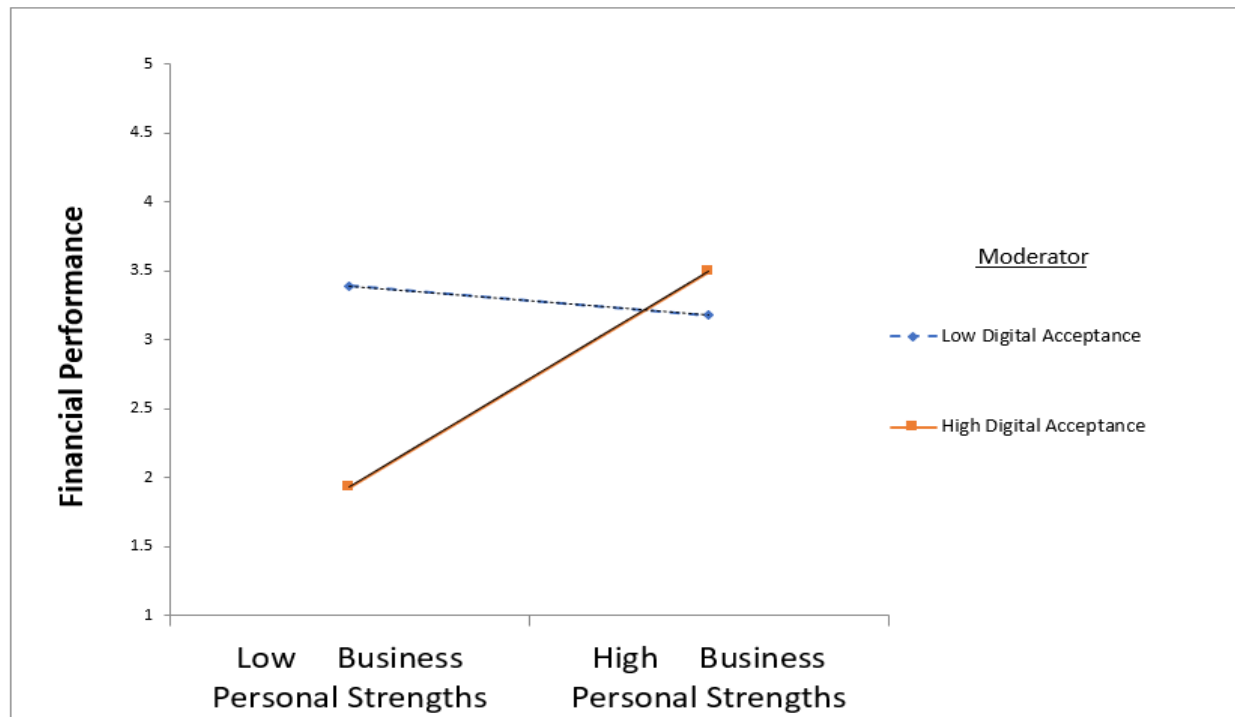
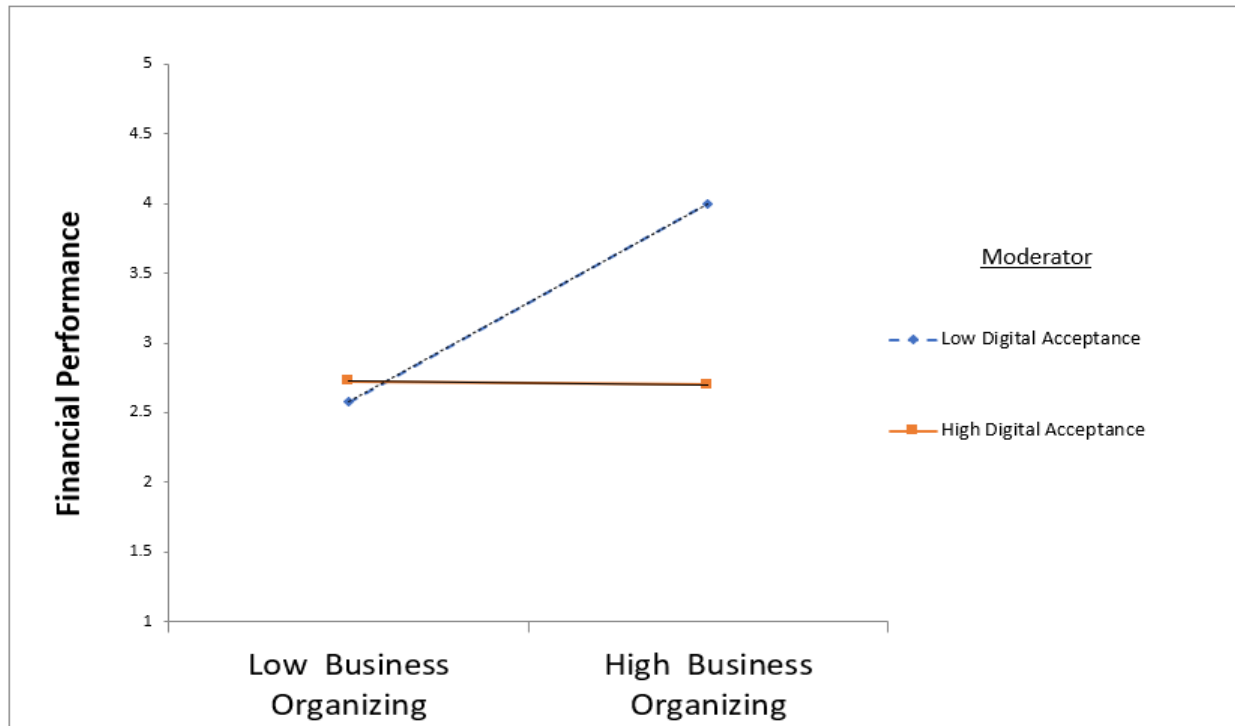


Figure 6: The Relationship of Business Dimensions & Financial Performance Moderated by Digital Acceptance

4.3.4 Main Effect of Business Competencies and Operational Performance

Multiple Linear Regression results for Opportunity, Organizing, Relationship, and Strategic business competencies to Operational Performance are presented in Table 13. In the 1st model, the controls Social Desirability and Education Level were statistically significant ($p < .05$) while Age and Gender were marginally significant ($p < .08$). The 5 business competencies were introduced in model 2. Hypothesis 1 predicted significant results for all 5 factors in the positive direction for both Performance Types (Financial and Operational). Organizing and Strategic competencies were significant with both relationships highly significant ($p < .001$). The magnitudes of these three competencies were both in the positive direction along operational performance providing support for H1b and H1d. The standardized beta for Strategic competencies was found to be 0.45 compared to Organizing at 0.26. Model 2 had an Adjusted R-squared of .46 with a statistically significant F-Value of 20.7 indicating good model fit. The interaction terms were entered in Model 3; however, there were no statistically significant results.

Table 13: Results for Business, Digital Acceptance, & Operational Performance

	Model 1	Model 2	Model 3
Intercept	*** (.29)	* (.44)	† (.48)
Social Desirability	.15* (.02)	.02 (.02)	.02 (.02)
Age	-.12† (.07)	-.02 (.05)	-.01 (.06)
Gender	.12† (.14)	.02 (.11)	.04 (.11)
Education	.17* (.06)	.03 (.05)	.03 (.05)
Opportunity	--	.06 (.08)	.06 (.08)
Organizing	--	.26*** (.07)	.31*** (.07)
Relationship	--	.01 (.08)	.02 (.08)
Strategic	--	.45*** (.08)	.42*** (.08)
Personal Strengths	--	-.04 (.10)	.00 (.11)
Digital Acceptance	--	-.07 (.10)	-.09 (.11)
Opportunity x Digital Acceptance	--	--	-.02 (.15)
Organizing x Digital Acceptance	--	--	-.13 (.14)
Relationship x Digital Acceptance	--	--	-.02 (.14)
Strategic x Digital Acceptance	--	--	.01 (.14)
Personal Strengths x Digital Acceptance	--	--	.10 (.16)
R-squared	.08	.48	.50
Adjusted R-squared	.06	.46	.46
F-Value	4.88***	20.69***	14.32***

Note: N= 232. Standardized regression coefficients are reported with standard errors in parenthesis.

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

4.4 Music Competencies and Performance

Multiple Linear Regression results for Music Theory, Songwriting, Performativity, Musicianship, Improvisation, Conducting, and Movement competencies to Non-Financial Performance are presented in Table 14.

4.4.2 Main Effect of Music Competencies and Non-Financial Performance

In the 1st model, the controls Social Desirability and Education Level were statistically significant with a $p < .001$ and $p < .05$, respectively. Gender was marginally significant. The 7 music competencies are then introduced in model 2. Hypothesis 2 predicted significant results for all 7 factors in the positive direction. Music Theory, Performativity, and Movement competencies were found to be significant with Performativity and Movement competencies highly significant ($p < .001$) compared to Music Theory skills ($p < .05$).

The magnitude for these three competencies was in the positive direction providing support for H2a, H2c, and H2g. The standardized beta for Performativity was 0.33 compared to Movement at 0.28 and Music Theory at 0.17. Model 2 had an Adjusted R-squared of .41 with a statistically significant F-Value of 14.17 indicating good model fit.

Table 14: Results for Music, Digital Acceptance, & Non-Financial Performance

	Model 1	Model 2	Model 3
Intercept	*** (.24)	-- (.39)	-- (.39)
Social Desirability	.27*** (.02)	.14* (.02)	.13* (.02)
Age	-.09 (.06)	-.04 (.05)	-.06 (.05)
Gender	.12† (.11)	.04 (.10)	.07 (.10)
Education Level	.13* (.05)	.03 (.04)	.05 (.04)
Music Theory	--	.17* (.08)	.14† (.08)
Songwriting	--	-.03 (.09)	-.05 (.09)
Performativity	--	.33*** (.10)	.29** (.10)
Musicianship	--	-.07 (.11)	-.03 (.12)
Improvisation	--	.09 (.10)	.13 (.10)
Conducting	--	-.12 (.10)	-.12 (.10)
Movement	--	.28*** (.06)	.25*** (.06)
Digital Acceptance	--	.09 (.08)	.13* (.09)
Music Theory x Digital Acceptance	--	--	.00 (.15)
Songwriting x Digital Acceptance	--	--	.11 (.15)
Performativity x Digital Acceptance	--	--	.00 (.16)
Musicianship x Digital Acceptance	--	--	-.20† (.20)
Improvisation x Digital Acceptance	--	--	-.07 (.16)
Conducting x Digital Acceptance	--	--	.12 (.17)
Movement x Digital Acceptance	--	--	.16* (.10)
R-squared	.12	.44	.47
Adjusted R-squared	.11	.41	.42
F-Value	7.89***	14.17***	9.74***

Note: N= 232. Standardized regression coefficients are reported with standard errors in parenthesis.

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

4.4.3 Moderating Effect of Digital Acceptance on Music & Performance

Moderating effects of Digital Acceptance were tested in model 3 with a resultant Adjusted R-squared of .42 and highly significant F Value of 9.74 indicating goodness of fit. Of the 7 interaction terms introduced, Musicianship was marginally significant ($p < .08$) and Movement statistically significant ($p < .05$). The Musicianship interaction terms returned a standardized Beta of -0.20. Meanwhile, the interaction term for Movement competencies had a higher statistical significance with a positive Beta of +0.16. Regarding the positive moderating hypothesis for all music dimensions and non-financial performance, partial support was found for hypothesis H5d due to the magnitude being in the opposite direction. Full support was provided for H5g. The 2-way plots for Musicianship and Movement were generated and are presented in Figure 7.

Figure 7 illustrates the negative moderating relationship between Musicianship competencies and Non-Financial Performance with musicians Low in Digital Acceptance having higher Non-Financial Performance at higher levels of Musicianship. The slope for high levels of digital acceptance is negative from Low to High values of Musicianship. Thus, Digital Acceptance strengthens the negative relationship between Musicianship and Non-Financial Performance. Meanwhile, for Movement competencies, musicians with high levels of digital acceptance experienced higher non-financial performance at high levels of movement skills. At low levels of digital acceptance and low personal strengths, there was higher financial performance compared to musicians with low personal strengths. Digital Acceptance hence strengthens the positive relationship between Movement and Non-Financial Performance.

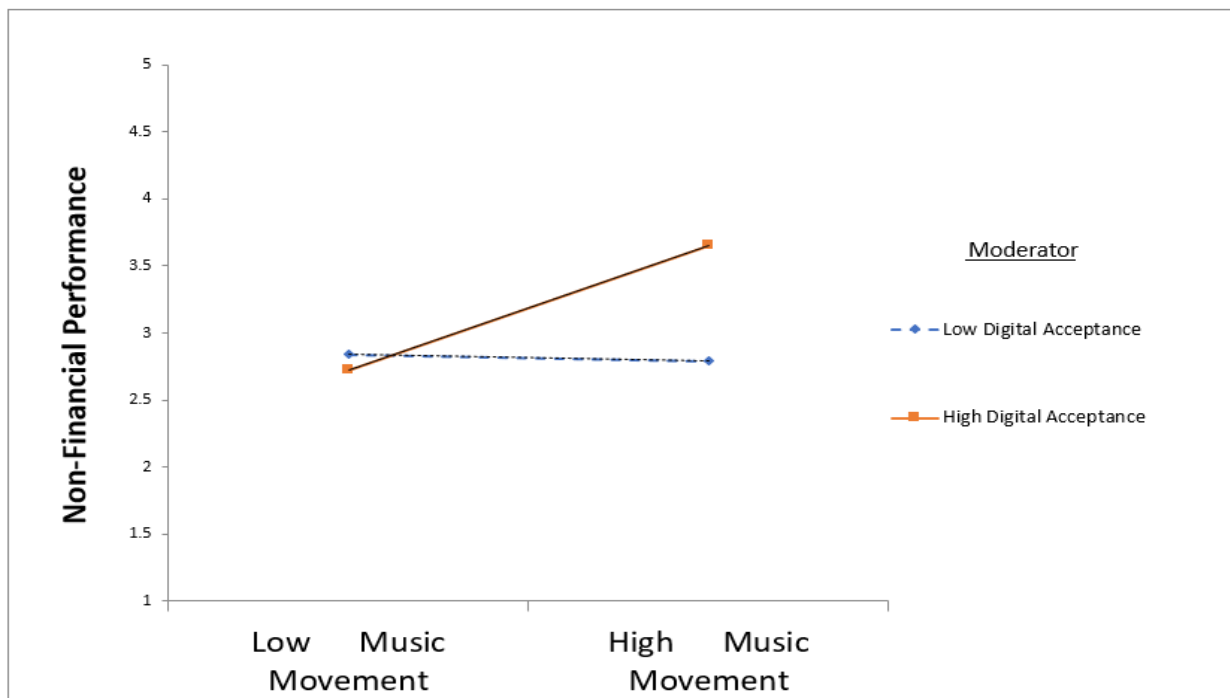
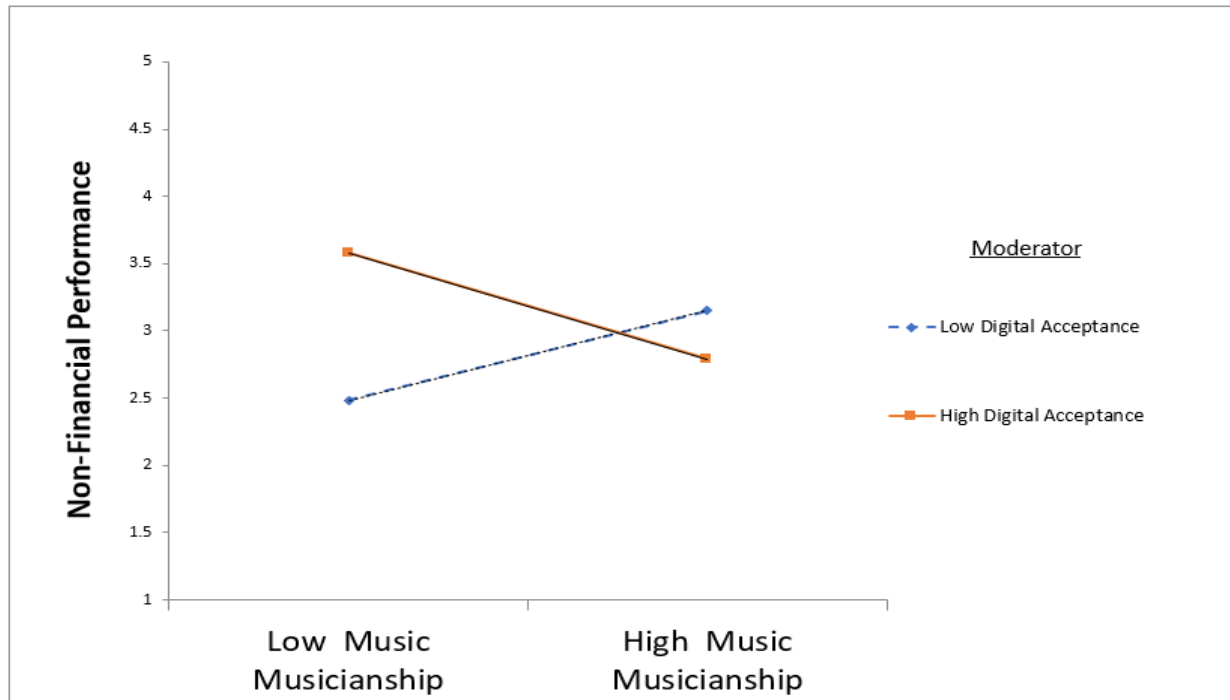


Figure 7: The Relationship of Music Dimensions & Non-Financial Performance Moderated by Digital Acceptance

4.4.4 Main Effect of Music Competencies and Product Success Performance

Multiple Linear Regression results for Music Theory, Songwriting, Performativity, Musicianship, Improvisation, Conducting, and Movement competencies to Product Success Performance are presented in Table 15. In the 1st model, the control for Social Desirability was the only control found to be statistically significant ($p < .001$). The 7 music competencies were introduced in model 2. Hypothesis 2 predicted significant results for all 7 factors in the positive direction for both non-financial and product success performance. Performativity and Movement competencies were found to be significant ($p < .01$ and $p < .05$ respectively) with the magnitude for the two competencies in the positive direction. Digital Acceptance was also statistically significant ($p < .01$). These results provided support for H2c and H2g along the dependent variable of Product Success. The standardized beta for Performativity was the higher of the two at 0.33 compared to the beta for Movement at 0.15. Model 2 had an Adjusted R-squared of .32 with a statistically significant F-Value of 9.95 reflecting good model fit. Interaction terms for music competencies and digital acceptance were entered in Model 3; however, there were no statistically significant results were identified.

Table 15: Results for Music, Digital Acceptance, & Product Success Performance

	Model 1	Model 2	Model 3
Intercept	*** (.24)	-- (.42)	-- (.43)
Social Desirability	.30*** (.02)	.18** (.02)	.16** (.02)
Age	-.02 (.06)	.05 (.05)	.04 (.05)
Gender	.06 (.12)	-.01 (.11)	.01 (.11)
Education Level	.00 (.05)	-.09 (.05)	-.07 (.05)
Music Theory	--	.06 (.09)	.05 (.09)
Songwriting	--	-.09 (.10)	-.09 (.10)
Performativity	--	.33*** (.10)	.28** (.11)
Musicianship	--	.05 (.12)	.06 (.13)
Improvisation	--	-.06 (.11)	-.05 (.11)
Conducting	--	.06 (.11)	.07 (.11)
Movement	--	.17* (.06)	.17* (.07)
Digital Acceptance	--	.15* (.09)	.18** (.09)
Music Theory x Digital Acceptance	--	--	-.09 (.17)
Songwriting x Digital Acceptance	--	--	.08 (.16)
Performativity x Digital Acceptance	--	--	-.12 (.18)
Musicianship x Digital Acceptance	--	--	.08 (.22)
Improvisation x Digital Acceptance	--	--	-.10 (.17)
Conducting x Digital Acceptance	--	--	.06 (.19)
Movement x Digital Acceptance	--	--	.10 (.11)
R-squared	.10	.35	.38
Adjusted R-squared	.09	.32	.32
F-Value	6.59***	9.95***	6.82***

Note: N= 232. Standardized regression coefficients are reported with standard errors in parenthesis.

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

4.5 Creativity Competencies and Performance

Multiple Linear Regression results for Creative Capturing, Challenging, Broadening, and Surrounding competencies to Non-Financial Performance are presented in Table 16.

4.5.2 Main Effect of Creativity Competencies and Non-Financial Performance

In the 1st model, the controls Social Desirability and Education Level were statistically significant with Gender marginally significant. The 4 creative competencies were introduced in model 2. Hypothesis 3 predicted significant results for all 4 factors in the positive direction for both non-financial and product success performance. Creative Capturing and Surrounding competencies were found to be significant ($p < .01$). The construct Digital Acceptance was statistically significant ($p < .05$) at a beta of .14. The magnitude for the two independent variables were in the positive direction providing support for H3a and H3d on Non-Financial performance. The standardized beta for Surrounding was 0.23 and Capturing resulted in a Std. Beta of 0.16. Overall, Model 2 had an Adjusted R-squared of .30 with a statistically significant F-Value of 10.67 reflecting goodness of fit.

Table 16: Results for Creativity, Digital Acceptance, & Non-Financial Performance

	Model 1	Model 2	Model 3
Intercept	*** (.24)	-- (.48)	-- (.51)
Social Desirability	.27*** (.02)	.15* (.02)	.13* (.02)
Age	-.09 (.06)	-.03 (.05)	-.04 (.05)
Gender	.12† (.11)	.06 (.11)	.08 (.11)
Education Level	.13* (.05)	.09 (.05)	.09 (.05)
Capturing	--	.18** (.06)	.16* (.06)
Challenging	--	.10 (.06)	.10 (.06)
Broadening	--	-.03 (.10)	-.05 (.11)
Surrounding	--	.22** (.08)	.23** (.08)
Digital Acceptance	--	.14* (.10)	.16* (.10)
Capturing x Digital Acceptance	--	--	-.02 (.09)
Challenging x Digital Acceptance	--	--	.18** (.09)
Broadening x Digital Acceptance	--	--	-.10 (.16)
Surrounding x Digital Acceptance	--	--	.08 (.15)
R-squared	.12	.30	.34
Adjusted R-squared	.11	.27	.30
F-Value	7.89***	10.67***	8.51***

Note: N= 232. Standardized regression coefficients are reported with standard errors in parenthesis.

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

4.5.3 Moderating Effect of Digital Acceptance on Creativity & Performance

Interaction terms for creative competencies and digital acceptance were then entered in Model 3 resulting in an Adjusted R-squared of .30 and highly significant F Value of 8.51 also reflecting goodness of model fit. Of the 4 interaction terms introduced, Creative Challenging was significant ($p < .01$) with a standardized beta of 0.18. However, the challenging competency was not significant for the main effects depicted in model 2. The moderating hypothesis for Creativity suggests that all interactions are significant and positive on the relationship between creative dimensions and non-financial performance. Support was only obtained for hypothesis H6b. The 2-way plots for Creative challenging were generated and displayed in Figure 8.

Figure 8 illustrates the positive moderating relationship between Creative Challenging competencies and Non-Financial Performance. Musicians High in Digital Acceptance have higher Non-Financial Performance at higher levels of Creative challenging. The slope for low levels of digital acceptance is negative from Low to High values of Challenging. Thus, Digital Acceptance strengthens the positive relationship between Creative Challenging and Non-Financial Performance.

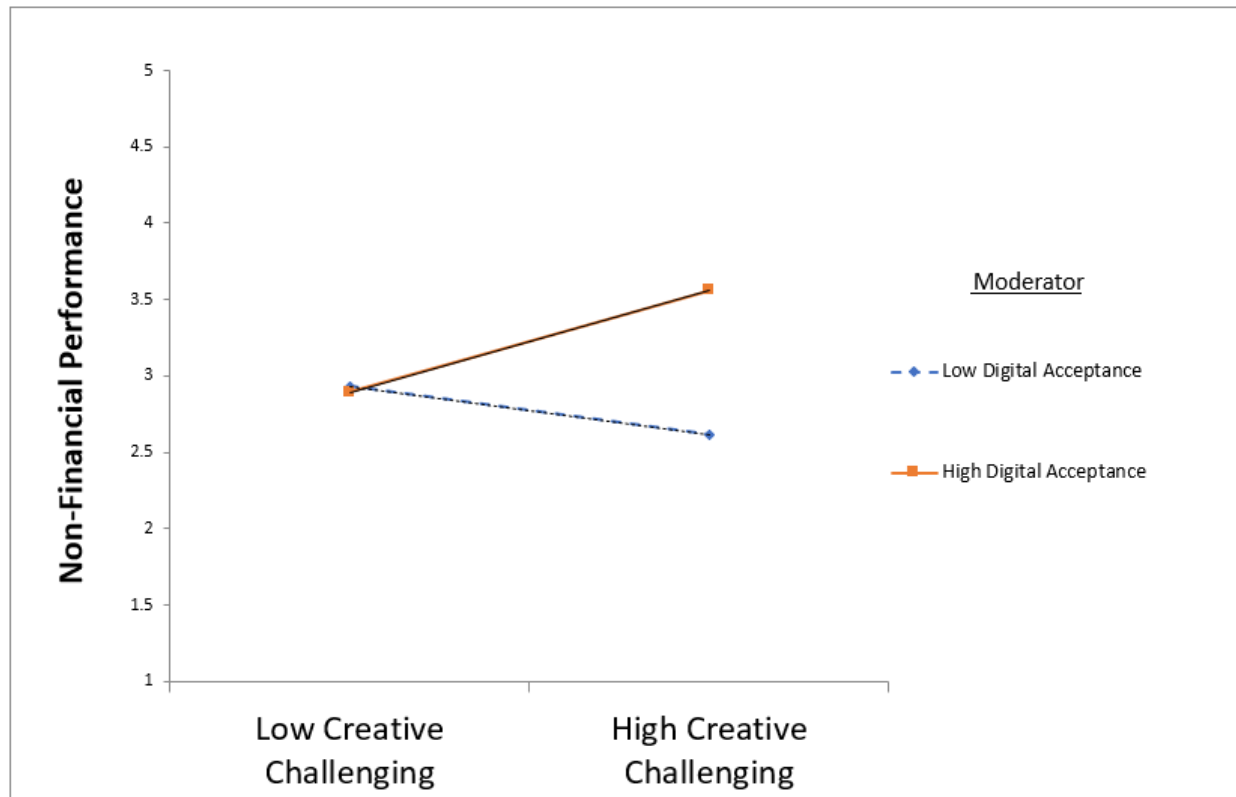


Figure 8: The Relationship of Creativity Dimensions & Non-Financial Performance Moderated by Digital Acceptance

4.5.4 Main Effect of Creativity Competencies and Product Success Performance

Multiple Linear Regression results for Creative Capturing, Challenging, Broadening, and Surrounding competencies to Product Success Performance are presented in Table 17. In the 1st model, the control Social Desirability was statistically significant ($p < .001$). The 4 creative competencies were subsequently introduced in model 2. Hypothesis 3 predicted significant results for all 4 factors in the positive direction for product success performance. Again, Creative Capturing and Surrounding competencies were found to be significant ($p < .01$ and $p < .05$, respectively). The construct Digital Acceptance was also statistically significant ($p < .01$) at a beta of .18. The magnitude for the two independent variables were in the positive direction providing support for H3a and H3d on Product Success performance. However, the standardized beta for Capturing was the higher of the two at 0.22 vs. the Surrounding construct Std. Beta of 0.16. Interestingly, this is the inverse of the results obtained for tests on non-financial performance. Model 2 resulted in an Adjusted R-squared of .26 with a statistically significant F-Value of 10.16 marking the statistical model as having goodness of fit.

Table 17: Results for Creativity, Digital Acceptance, & Product Success Performance

	Model 1	Model 2	Model 3
Intercept	*** (.24)	-- (.49)	-- (.53)
Social Desirability	.30*** (.02)	.19** (.02)	.16* (.02)
Age	-.02 (.06)	.04 (.05)	.04 (.05)
Gender	.06 (.12)	.02 (.11)	.04 (.11)
Education Level	.00 (.05)	-.04 (.05)	-.05 (.05)
Capturing	--	.22** (.06)	.20** (.06)
Challenging	--	.10 (.06)	.09 (.06)
Broadening	--	-.04 (.11)	-.03 (.11)
Surrounding	--	.16* (.08)	.18* (.08)
Digital Acceptance	--	.18** (.10)	.20** (.10)
Capturing x Digital Acceptance	--	--	-.04 (.10)
Challenging x Digital Acceptance	--	--	.19** (.09)
Broadening x Digital Acceptance	--	--	-.02 (.16)
Surrounding x Digital Acceptance	--	--	.02 (.15)
R-squared	.10	.29	.33
Adjusted R-squared	.09	.26	.29
F-Value	6.59***	10.16***	8.09***

Note: N= 232. Standardized regression coefficients are reported with standard errors in parenthesis.

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

4.5.5 Moderating Effect of Digital Acceptance on Creativity & Performance

Interaction terms for creative competencies and digital acceptance were then entered in Model 3 resulting in an Adjusted R-squared of .29 and highly significant F Value of 8.09 providing adequate measures for goodness of fit. Of the 4 interaction terms added in Model 3 Creative Challenging was significant ($p < .01$) with a standardized Beta of 0.19; only one percent above the Beta obtained for moderation results of the Challenging dimension on non-financial performance. Once again, the challenging competency was not significant for the main effects detailed in model 2. The moderating hypothesis for Creativity proports all digital interactions to be significant and positive for product success performance. As such, support was only obtained for hypothesis H6b. The 2-way plots for Creative challenging were generated and displayed in Figure 9.

Figure 9 illustrates the positive moderating relationship between Creative Challenging competencies and Product Success Performance. Musicians High in Digital Acceptance have higher Product Success at higher levels of Creative challenging. The slope for low levels of digital acceptance decreases from Low to High values of Challenging. Hence, Digital Acceptance strengthens the positive relationship between Creative Challenging and Product Success Performance.

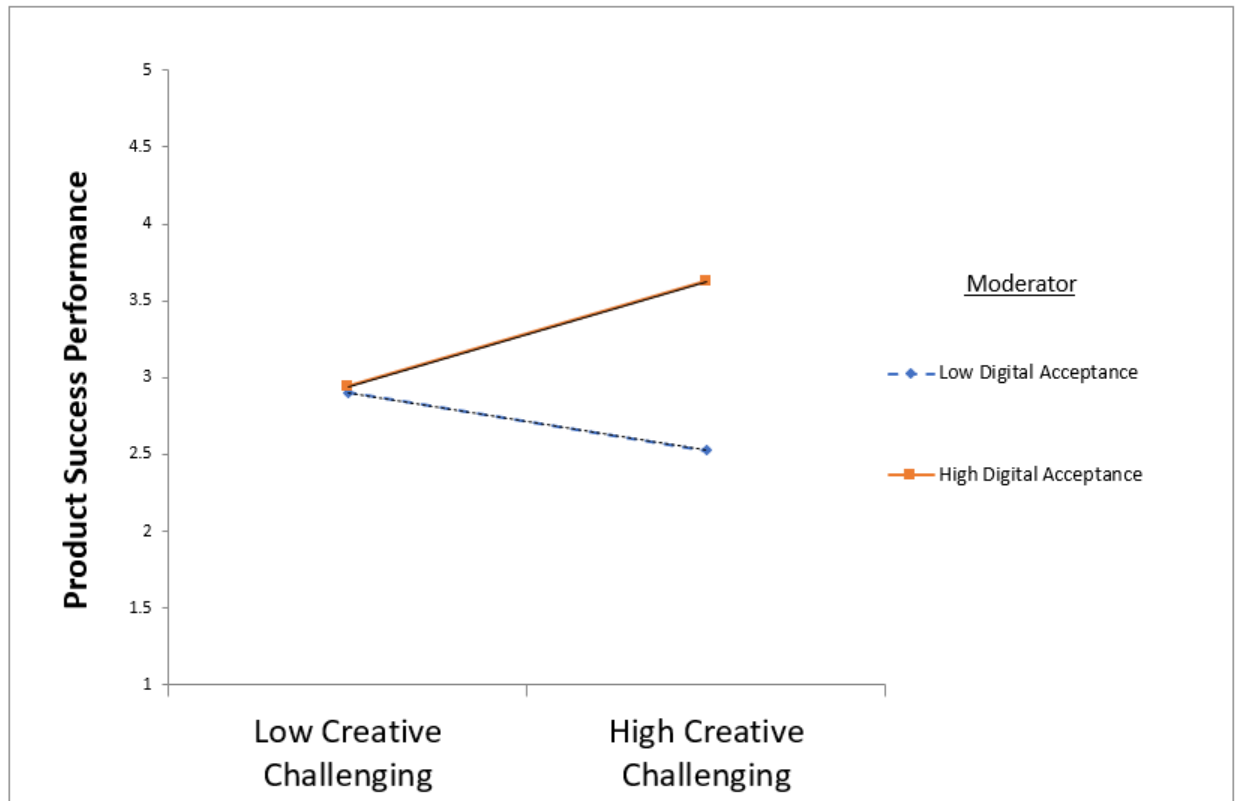


Figure 9: The Relationship of Creativity Dimensions & Product Success Performance Moderated by Digital Acceptance

4.6 Summary of Outcomes for Hypothesis Testing

A summary of the hypothesis results for main effects are presented in Table 18. Table 19, 20, and 21 showcases the results of hypothesis testing on moderating effects on Business, Music, and Creativity. The results are discussed in greater detail in Chapter 5 along with the study's implications and concluding remarks concerning the future of the music industry. Results for the hypotheses advanced in Chapter II and analyzed in Chapter IV were reviewed for statistical conclusion. Issues or anomalies encountered are discussed in Chapter V including predicted vs. actual results, potential reasons for non-significance, and surprising results such as statistical significance in the opposite direction and the negative effects of digital moderation.

Table 18: Results of Hypothesized Relationships Between Musician Entrepreneur Competencies & Performance

Hypotheses	Std. (β)	Sig. (p)	Hypothesis Supported	Std. (β)	Sig. (p)	Hypothesis Supported
	<u>Financial Performance</u>			<u>Operational Performance</u>		
<i>H1a:</i> Direct effect of Opportunity on Performance	-.03	ns	No	.06	ns	No
<i>H1b:</i> Direct effect of Organizing on Performance	.34***	.000	Yes	.26***	.000	Yes
<i>H1c:</i> Direct effect of Relationship on Performance	.12	ns	No	.01	ns	No
<i>H1d:</i> Direct effect of Strategic on Performance	.10	ns	No	.45***	.000	Yes
<i>H1e:</i> Direct effect of Personal Strengths on Performance	.18*	.025	Yes	-.04	ns	No
	<u>Non-Financial Performance</u>			<u>Product Success Performance</u>		
<i>H2a:</i> Direct effect of Music Theory on Performance	.17*	.026	Yes	.06	ns	No
<i>H2b:</i> Direct effect of Songwriting on Performance	-.03	ns	No	-.09	ns	No
<i>H2c:</i> Direct effect of Performativity on Performance	.34***	.000	Yes	.33***	.000	Yes
<i>H2d:</i> Direct effect of Musicianship on Performance	-.07	ns	No	.05	ns	No
<i>H2e:</i> Direct effect of Improvisation on Performance	.09	ns	No	-.06	ns	No
<i>H2f:</i> Direct effect of Conducting on Performance	-.12	ns	No	.06	ns	No
<i>H2g:</i> Direct effect of Movement on Performance	.29***	.000	Yes	.17*	.022	Yes
	<u>Non-Financial Performance</u>			<u>Product Success Performance</u>		
<i>H3a:</i> Direct effect of Capturing on Performance	.18**	.008	Yes	.22**	.002	Yes
<i>H3b:</i> Direct effect of Challenging on Performance	.10	ns	No	.10	ns	No
<i>H3c:</i> Direct effect of Broadening on Performance	-.03	ns	No	-.04	ns	No
<i>H3d:</i> Direct effect of Surrounding on Performance	.22**	.003	Yes	.16*	.028	Yes

Note: † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. "ns" indicates non-significant.

Table 19: Results of Hypothesized Moderating Effects of Digital Acceptance on Business Competencies & Performance

Hypotheses	Std. (β)	Sig. (p)	Hypothesis Supported	Std. (β)	Sig. (p)	Hypothesis Supported
	<u>Financial Performance</u>			<u>Operational Performance</u>		
<i>H4a</i> : Moderating effect of Digital Acceptance on Opportunity and Performance	-.03	ns	No	-.02	ns	No
<i>H4b</i> : Moderating effect of Digital Acceptance on Organizing and Performance	-.24*	.012	Partial	-.13	ns	No
<i>H4c</i> : Moderating effect of Digital Acceptance on Relationship and Performance	.03	ns	No	-.02	ns	No
<i>H4d</i> : Moderating effect of Digital Acceptance on Strategic and Performance	-.01	ns	No	.01	ns	No
<i>H4e</i> : Moderating effect of Digital Acceptance on Personal Strengths and Performance	.21**	.007	Yes	.10	ns	No

Note: † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. "ns" indicates non-significant.

Table 20: Results of Hypothesized Moderating Effects of Digital Acceptance on Music Competencies & Performance

Hypotheses	Std. (β)	Sig. (p)	Hypothesis Supported	Std. (β)	Sig. (p)	Hypothesis Supported
	<u>Non-Financial Performance</u>			<u>Product Success Performance</u>		
<i>H5a</i> : Moderating effect of Digital Acceptance on Music Theory and Performance	.00	ns	No	-.09	ns	No
<i>H5b</i> : Moderating effect of Digital Acceptance on Songwriting and Performance	.11	ns	No	.08	ns	No
<i>H5c</i> : Moderating effect of Digital Acceptance on Performativity and Performance	.00	ns	No	-.12	ns	No
<i>H5d</i> : Moderating effect of Digital Acceptance on Musicianship and Performance	-.20†	.068	Partial	.08	ns	No
<i>H5e</i> : Moderating effect of Digital Acceptance on Improvisation and Performance	-.07	ns	No	-.10	ns	No
<i>H5f</i> : Moderating effect of Digital Acceptance on Conducting and Performance	.12	ns	No	.06	ns	No
<i>H5g</i> : Moderating effect of Digital Acceptance on Movement and Performance	.16*	.020	Yes	.10	ns	No

Note: † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. "ns" indicates non-significant.

Table 21: Results of Hypothesized Moderating Effects of Digital Acceptance on Creativity Competencies & Performance

Hypotheses		Std. (β)	Sig. (p)	Hypothesis Supported	Std. (β)	Sig. (p)	Hypothesis Supported
		<u>Non-Financial Performance</u>			<u>Product Success Performance</u>		
<i>H6a:</i>	Moderating effect of Digital Acceptance on Capturing and Performance	-.02	ns	No	-.04	ns	No
<i>H6b:</i>	Moderating effect of Digital Acceptance on Challenging and Performance	.18**	.008	Yes	.19**	.005	Yes
<i>H6c:</i>	Moderating effect of Digital Acceptance on Broadening and Performance	-.10	ns	No	-.02	ns	No
<i>H6d:</i>	Moderating effect of Digital Acceptance on Surrounding and Performance	.08	ns	No	.02	ns	No
<i>Note:</i> † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. “ns” indicates non-significant.							

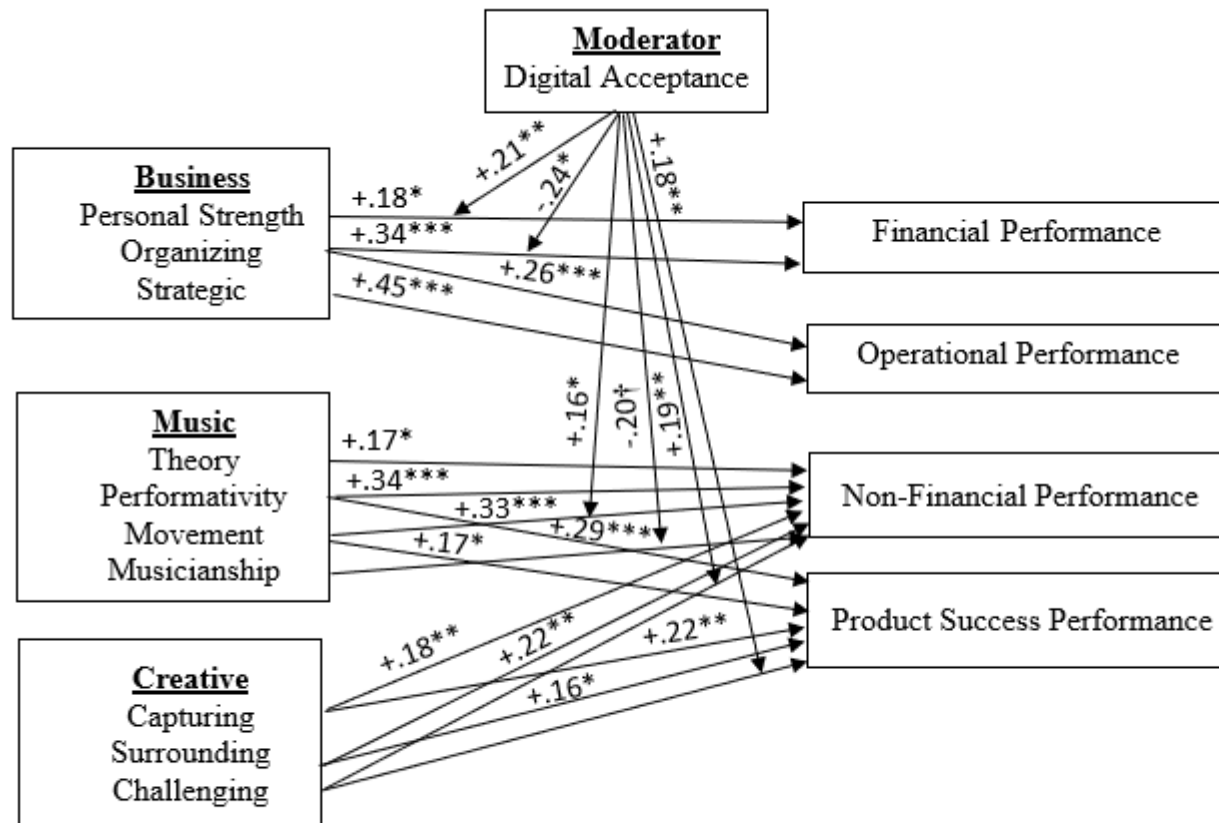
CHAPTER V

DISCUSSION

“It’s a choice you make in Capitalism. You can make money and do it the right way. You don’t have to wring out the rag and get every drop.” – Fat Mike of NOFX

5.1 Summary of Findings

There were four significant findings for Business competencies relationship to performance along the dimensions of Personal Strength, Organizing, and Strategic. Five significant findings for Music competencies relationship to performance along the Music theory, Performativity, and Movement dimensions. Four significant findings for Creative competencies relationship to performance were found for Capturing and Surrounding. In total, there were 6 statistically significant moderating effects across 3 competencies and 4 performance types. These results provide mixed support for our hypothesis. Overall, every domain (business, music, creativity) observed multiple dimensions with significance with digital adoption moderating relationship as well amongst every domain for specific dimensions. Results are illustrated in figure 10 with the final statistical model including Beta coefficients and p-values. This leads the dissertation to conclude that a Jack of All Trades Theory holds for musician entrepreneurs who were found to have multiple statistically significant competencies associated with various kinds of performance outcomes. Hence, if musician entrepreneurs seek to perform financially and non-financially as competitive players in the music industry balanced skills are a must have.



Note: N = 232. Standardized beta coefficients reported with significance: † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Relationship arrows without a Beta were not significant at the main effect level but had a significant 2-way interaction.

Figure 10: Final Model with Statistical Results from Multiple Linear Regressions

Amongst the variable studied, several competencies appeared as significant irrespective of the performance measure of interest. For the business domain, organizing competencies were statistically significant for both performance types (Financial/Operational). For the music domain, Performativity and Movement were statistically significant for Non-Financial and Product Success. And for Creativity, Capturing and Surrounding were likewise statistically significant for both performance types. Accordingly, this dissertation can conclude that these competencies should be regarded with a higher degree of importance to the musician entrepreneur. Conversely, Personal Strengths were only meaningful for Financial Performance and Strategic competencies only significant for Operational Performance. Along the music competencies, Music theory was only significant to non-financial performance. Therefore, context plays a major function inquiring: What kinds of performance outcomes are important to musician entrepreneurs and their non-conventional views of success in the music industry? It could perhaps be the case that musicians value some performance outcomes over others.

For the moderation results, the analysis observed negative moderation by Digital Acceptance on the relationship between organizing competencies and performance (Std. Beta, -0.24). As well, albeit only moderately significant, there was negative moderation on musicianship and non-financial performance (Std. Beta, -0.20). These moderation findings are contradictory with our hypothesized relationship direction; however, the results may provide unique insights into phenomena surrounding digitalization and assumptions that effects are beneficial. This dissertation's empirical results indicate that digital acceptance and use of digital tools and resources may be deleterious to performance. I offer potential explanations as to why this may be the case.

For organizing competencies, digitalization may distract musicians from meaningfully engaging and making real-world connection with others, outside the digital realms of social media and streaming platforms. Similarly, for the music competency of musicianship, digital resources may distract musicians from investing into their craft as they expend cognitive resources in learning how to use digital tools. It may be the case that there is a curvilinear relationship with digitation such that there may exist an inflection point at which too much digitization is not a good thing.

In summary, Relationships may be weakened depending on the specific use case for digital tools and resources. Musicians may also use social media more for personal reasons than business (networking/marketing), resulting in a misappropriation of effort. Musicians may also overuse DAW's infinite possibilities for production (editing, comping, quantizing, autotuning, layering, etc.), resulting in a shift from capturing high caliber musicianship, to editing takes "in the box" while working more with their computers than their musical instrument(s). Therefore, musicians are encouraged to use available tools and resources, but must exercise caution with their investment strategies.

In some ways, these findings support the contention from JOAT that entrepreneurs should have a balanced skill set. Thus, competencies should be well balanced so as to moderate the potential dampening effects of digital moderation. Having overviewed our results, we proceed to address the Research Questions presented in Chapter 1.

RQ1 – Does digitalization of music industry supply chain elements ameliorate or exacerbate performance challenges music entrepreneurs face, and how?

RQ2 – What competencies do music entrepreneurs require to lead self-managed careers and to what degree do competencies determine performance outcomes?

Regarding Research Question 1, results from this study reveal that digitalization confers benefits for the competencies of Business (Personal Strength), Music (Movement), and Creativity (Challenging). Yet, digitization may also prove detrimental to the competencies of Business (Organizing) and Music (Musicianship). Hence, digitalization result in complex interactions which warrant additional research. However, this dissertation is the first in its kind to begin at addressing such gaps and paradoxes in the music business literature. To help address Question 2, this dissertation explored a broad number of competencies, 16 in total across 3 dimensions addressing through our literature review and JOAT framework the competencies important for self-managed careers in the music business. Notably, of the analyzed competencies 8 were statistically significant along one of the four performance measures captured: Organizing, Strategic, Personal Strength, Music Theory, Performativity, Movement, Capturing, and Surrounding. These competencies are the ones as such identified by the dissertation as helping entrepreneurs work towards success in the music industry. Next, I provide potential explanations as to why the statistical analysis did not reveal significance for multiple competencies explored.

For Business skills and business performance outcomes, there was a lack of significance for Opportunity and Relationship competencies which suggests that musician entrepreneurs may not be very skillful at identifying and recognizing business opportunities nor might they possess adequate skillsets for working with other individuals and groups. Potentially these results could point at a disconnect in working with internal versus external entities; it might be the case that resistance to business thinking remains predominant with musicians having “artistic blinders” limiting their capabilities. Lack of significance for multiple music competencies can suggests competencies might not be as important to perceptions of success. The Music skills of Songwriting, Musicianship, Improvisation, and Conducting skills are all related to the kinds of

aesthetic, artistic, and talent driven activities that musicians engage in. This implies other factors beyond music virtuosity are what matter to entrepreneur's conception of performance. Playing live and physical self-expression instead seem to bear more weight for musicians' self-reported performance, potentially due to external validation, catharsis, or instant gratification. The deviations found in the results might also reflect the ineffable nature of music, dubbed the language of emotion, whose artistic value transcends measurement by virtue of its subjective and personal nature.

Regarding Creativity, Challenging and Broadening skills reflect personal expansion and self-development. The lack of significance on all of these domains might reflect that musicians narrow their focus on other creative activities such as capturing (recording music) and surrounding (playing with others) at the expense of more arduous creative behaviors such as Challenging. Again, there a possibility that musicians limit their creativity potential by not having a balanced skill set of creative competencies.

Digital acceptance also effected no moderation on Opportunity, Relationship, or Strategy; Music Theory, Songwriting, Performativity, Improvisation, and Conducting; nor, Capturing, Broadening, or Surrounding. There were no moderating relationships found whatsoever between Business and Music Competencies on Operational Performance which may suggests that operational performance (efficacy in using resources to achieve goals) is unaffected by the affordances of digitalization or that musicians do not leverage digital resources with operational efficiency in mind. Digital resources might not be strategically cultivated or not used for the purpose of driving performance reflecting a difficulty by musician entrepreneurs in managing the relationships they form with the tools of digitalization.

5.2 Significance of Study

The significance of this study extends beyond the classic conception of entrepreneurship and are explored here in terms of contributions to the literature, to research, and to practice. Notably, this dissertation revivifies the Jack of All Trades (JOAT) theory putting it to the test in a novel context (musician entrepreneurs) marked by a tumultuous industry where success is rare and difficult to define. The results highlight the relevance of JOAT to the culture industries, content creators, and newer generations like Millennials who are expert users of digital tools. I proceed to expand on the significance of the study by detailing implications amongst various disciplines branches where this research offers the hope of helping musicians, researchers, and music industry agents with an empirical understand the phenomena of cultural entrepreneurship.

5.2.3 Contributions to the Literature

This dissertation originally strived to expand on the music industry entrepreneurship literature by expanding on whether competencies and performance are tightly coupled phenomenon in the era of digitization and the possibilities afforded by Information Communication Technology (ICT). Under the context of the 2020 Covid pandemic, society witnessed a shift in production quality which also corresponded with many musicians both new (undiscovered) and old (established) engaging in entrepreneurial activities of exploiting opportunities using the advents of ICT such as smart phones and home studios to continue and output creative works. In parallel, this study approaches musicians and artist from a triatic perspective that includes business competencies, a shift towards entrepreneurial behaviors, and prompts us to asks whether the performance has benefited or suffered as a result. Based on our empirical analysis, and while contrary to our intuition, these finding do nonetheless pose a strong and interesting contribution to the extant literature with interesting theoretical implications.

With regards to the music industry and associated supply chain, the research here reveals that several components in the supply chain can indeed be bypassed such as production facilities, directors/producers, teamsters, as well as the high-end technology of industry (reel to reel recorders, outboard gear, 6K cameras, isolated sound stages, lighting fixtures, etc.). This lends credence to the claim that digitization provides users with an ability create and distribute content by eliminating elements such as middlemen. While the music industry supply chain imparts high quality onto its final cultural products, this dissertation's contributions are amplified by the fact that operational performance was identified as meaningful variable.

The adage that quality is a barrier to entry is thus replaced by the idiom that digitalization affords lower barriers to entry. For the practitioners, I recommend exploring other factors besides competencies that may play an important role in performance such as authenticity or other more ineffable phenomena such as aesthetic or semiotic attributes. To the digitalization literature on social media, results evidencing the moderating role of digital acceptance contributes to the evolving conversation in entrepreneurship and marketing which contends that social media provides unique intimate and privileged content that helps build user trust, loyalty, and engagement. By music artist showing us glimpses into their homes and offering a candid "heart on the sleeve" version of their artistic self-expression via digital tools, users may find greater meaning and connection with their cultural products than that offered by the highly produced and sometimes generic content criticized as being pastiche or bubblegum. Here is where this study contributes to the research on Resource Based View by strengthening its axiom that valuable resources (in this case, musicians) are rare, non-imitable, difficult to reproduce, and unique products of their time.

To this last point, I reiterate another purpose for this dissertation which is addressed by the statistical validity of our results. One aim of this dissertation was to determine whether the positive

effects of digitization can be harnessed by society at large or whether a digital divide exist which privies certain users over others, such as those with connections to record label firms, managers, production crews, or industry connections. Framing this question in the context of music entrepreneurs who historically face impasses such as limited financial resources, I find that digital access to the tools and network links needed to compete in the big leagues is occurring at large.

Empirical evidence that multiple competencies are significantly related to various types of performance challenges the entrepreneurship paradox between the world of business and music. By promoting the tenant that music entrepreneurs must see risks in the world in terms of opportunities to benefit from their corresponding actions, recommendations to entrepreneurs including pushing past cognitive barriers, elevating personal strengths, and delivering products or services that resonate with consumers whether this is actualized along a musical dimension or creative dimension as both were found to be significant. Such feats could help explain why innovation offered by music entrepreneurs often defy industry conventions succeeding against all odds and generating competitive friction to major industry players such as record labels who specialize in business core competencies. By demonstrating the value of digitalization, this research recommends actions to practitioners (including culture entrepreneurs in other entertainment sectors) to work towards a good balance of entertainment value, efficient production and operations, with a healthy dose of vitalizing creativity.

5.2.3 Implications to Theorists and Researchers

Implications for researchers include better expanding upon unexplored elements in the entertainment industry supply chain exploring digitization effects not only in the music industry but in other creative industries such as film making where individuals are producing cinema with

digital technology including cameras built into iPhones as opposed to more classical recording technologies such as Ari or Panasonic cameras and 45 mm tape. Similarly, researchers might explore sectors such as the book industry where e-readers are becoming popular but have not yet displaced physical books. Implications for practitioners including keeping a consideration for competencies needed in the domain of interest, and working to have a mixed balanced set of these so as to diversify the creator's skillset towards a 21 century "Renaissance man."

Implications to research include the need to think of how theories interrelate and complement each other to develop a unified theory. In this research, multiple theoretical perspectives were identified to bear relevance on the subject matter at hand; yet, perhaps due to the limitations associated with publication, few research papers concerning the music industry integrate multiple theoretical perspective in explaining and predicting the trajectory of this tumultuous industry. Developing more robust constructs for difficult to measure variables such as artistic competencies or cultural performance is another area of opportunity that can be expanded on in future research. Lastly, operationalizing these various constructs using qualitative or quantitative methods to empirical test our model and obtain generate estimates of effect size, remains the grand challenge before our academic pursuits as it would allow validation of the claims proposed in this dissertation with "hard figures" versus self-reported measures. Limitations encountered in obtaining effect size estimates included collecting identifying information from survey takers (such as personal or musician associated social media profiles) as such questions run counter to policies on crowdsourcing platforms such as Prolific.

The music industry is said to have been one of the first through go through the digitization effect of the 21st century with other major industries like books and newspapers lagging but now also feeling the financial impacts. JOAT helps explain that music entrepreneurs

are acting in an accepting and opportunistic manner towards innovative disruptions in the cultural industries (Noyes, Allen, & Parise 2012). Additional opportunities/challenges anticipated include applying this study's JOAT framework to other culture industries to promote generalizability. As an example, Print Media has also experienced a decline in physical sales of newspapers, books, magazines, etc. due to the internet of things, digitization of consumer goods, and e-commerce (Clemons, Gu, Lang, 2002). JOAT here may help provide a useful lens to explore the ways in which this industry is coping with environmental interdependence and the emergency of self-published authors. Future research may aim to explore if JOAT competencies are used homogenously or heterogeneously across different culture industries which may also include photography, performance art, and painting to name a few. Future directions for researchers include obtaining empirical support for our proposed model by 1) Developing a survey instrument to test various "creator" competencies along the 3 dimensions explored.

Another implication for researchers involves our paper's operationalization of the constructs stemming from extant Entrepreneurship Theory (Mitchell, 2000). While I advance self-reported measures for creativity, the actual degree of creativity remains subjective and a difficult to elucidate construct. Alternatively, music entrepreneurs may be highly creative but not as prolific with their output focusing on quality over quantity—what can be said of the creativity innate to high versus low quality creations? As such, operationalization of the creativity construct may be better defined by a composite score of music creativity factors or potentially measured awards such as Grammys (Elshan et.al, 2021). Lastly, existing artists bound to contracts with major labels may find themselves unable to take advantage of new technologies (Vella, 2018). This contingency suggests the presence of a digital divide where one subset of artists stands to benefit more than another. Implications for research include an overlap with the

IS fields where the digital divide literature is gaining traction to better understand differences in technological adoption between different kinds of music entrepreneurs (West, 2007).

5.2.4 Implications to Practitioners

Implications to practitioners are clearer and pose the issue of deciding what kind of entrepreneurial player to develop towards. Should new artist invest their artistic development of business education? For educational institutions, are there programs of study that offer both? Lastly, I underscore the importance of traditional methods in the music industry where partnerships and teams help drive and guide cultural endeavors in the right direction. Thus, musicians should not discredit the role of established cultural firms such as record labels, nor the value they bring. As this dissertation's results have demonstrated, digitization of the music industry is not the end all be all as there will always a need for cultural intermediaries who facilitate processes along the lines of core competencies such as opportunity identification. Other competencies can be similarly constructed; for instance, often record labels often provide trainers such as vocal or dance coaches. Along the same line of thought, record label producers are charged with the task of fostering creative conditions for music artist by contracting for collaborations or unique studio facilities with stimulating environments. Overall, it is noted that entrepreneurial processes in the music industry represent highly complex phenomenon demanding multidimensional skills and robust resource acquisition. However, high risk high rewards are a hallmark of all entrepreneurial ventures and should therefore not dissuade artists.

JOAT suggestions to musicians include to consciously engage in competency development with an emphasis on business skills to remain competitive in the music business amongst various performance dimensions. Recommendations to practitioners also include adopting the next generation innovations to align with the future technological paradigm shifts

and lead the pack in ushering the next wave of music mediums and platforms; e.g., ATMOS spatial audio, Blockchain music files, or Music AI. Working to provide consumers the next generation high quality and high convenience music files (i.e., blockchain music formats) holds the potential to unlock massive revenues from the global market. For music industry firms, record labels may explore music industry synergy services that can be sold to artists/musicians/groups as barriers of entry lower. By selling record label services that have been historically contracted to “signed” groups, firms may develop other lines of business that use their core competencies in order to unlock new revenue streams for musicians that are deficient in competencies such as business or digital or technical ones. Such services may include access to production and manufacturing facilities, workshops at conferences, Promotion and Marketing, Tour Management, even including artist education as has been observed online with music communities that launch subscription-based academies teaching “industry secrets.”

For venture entrepreneurs, the recommendation is twofold: Strengthen the value proposition of digital tools and resources by including consumer educational texts and videos that maximizes exposure to the technology in a way that is not overtly technical or complex (Khouri, 2017). With reference to new music firm ventures, founder musician entrepreneurs should not only offer the promise for a new future with rose tinted glasses, but also apply features and elements to platforms and apps that work in the service of co-creation (van de Haar et.al, 2019). While there are many constraints associated with this charge, the entrepreneurship literature on co-creation has demonstrated that venture firms hold the power to shape new technology adoption through the innovative applications and close partnership with stakeholders which may include developers, online music communities, key governance members, politicians, investors, and artist-entrepreneurs themselves (Conti, 2017).

5.3 Assumptions and Limitations

This study and its empirical results include within it several limitations. Through findings supplemented with self-reports for performance, this dissertation aimed to ameliorate potential sources of bias through recommended triangulation approaches. For the target population of artist musicians, it is assumed that the target group is sufficiently versed in business and music language to adequately answer the questionnaire. Yet the differences between the language of artists versus business people may be too large to reconcile through academic prompts. Analogously, it is taken for granted that musicians are intimately involved in their careers and able to assess self-reported measures like those of performance. As the initial paradox in the literature suggests, musicians espouse resistance to business thinking and consciously avoid concerning themselves with performance indicators such as profits or return on investment. While the survey instrument provides for alternate gauges of performance including non-financial performance and product success, top acts or up and coming musicians may have teams of specialists (or family members) that shift the burden such that the focal musician lacks the proper knowledge to address all items accurately. By analyzing creativity and musical skills, this study circumvents problem spots associated with this study's assumptions.

A limitation of the study design also includes that it establishes the artist/musician as a singular entity. Many musical acts operate in partnership on the songwriting front with songwriting duos typically taking on different aspects of the musical career. As such, simply polling the musical frontperson may not tap into the tribal knowledge and advantages that groups such as musical bands possess. For instance, one member of the band may possess higher musical skills than other, while another member rates high in business competencies, resulting in a mix of "balanced" competencies that are present at the team level. As a case in point, after the

death of The Beatles manager, bass player and vocalist Paul McCartney took on business relations while other members focused on songwriting and expanding their musical repertoire. For such cases, collecting data for all members in a musical act (including side “hired gun” musicians, management personnel, or technical crews), may prove to be a more fruitful approach as well as lending itself to more sophisticated analysis including hierarchical linear modeling. Despite challenges and limitations with our research, this dissertation is the first of its kind to analyze the musician entrepreneur under a unique context that incorporates multidisciplinary elements such as business and artistic competencies, multiple performance factors, identifying evidence for the relationships therein, and offering the perspective that digitalization both strengthens and dampen the relationships between certain competencies while bolstering others.

Our empirical analysis does not holistically take into consideration the stage at which digitalization is currently. Based on the prediction of Schroder (1986), the industry could very well be at the sage where blending of old and new processes allows for the diffusion of innovative practices, placing us at the end of the cycle and at the start of the new one such as the age of Artificial Intelligence or Blockchain. Validation of this through our model can provide vindication for digitization in the music industry which so far has been disruptive to firms but beneficial to consumers, the questions resurface with respect to the impacts on musicians themselves. Digitalization may be the saving grace through which artists fight fire with fire lowering costs and benefiting all from artists, to firms, and consumers. Alternatively,, digitalization could reflect the insidious mechanism of Adorno’s Culture Industry or Bourdieu’s “illusio” iron cage tightening around musicians who produce content that keep consumers in perpetual bondage to streaming platforms and social media sites. Yet without effect sizes for

performance measures, this study is unable to translate our results meaningfully into real world outcomes or make judgement evaluations regarding the broader entertainment industry.

On a separate note, transaction cost economics in the music industry arena supports for the implementation of vertical integration and bringing highly asset specific technological core competencies “in-house.” I make the assumption that such acts would take place at the exclusion of other supply chain elements such as producers or engineers with fully stocked musical equipment and facilities in their arsenal. However, integrating digital processes in supply or value chains does not exclude the contracting of engineers or producers, especially when bigger budgets are afforded to high profile music artist with massive global followings to guarantee “professional” sounding “industry-class” songs that generate airplay and foster commercial success. Instead, we may observe a case whereby true democratization of the music industry takes place and existing engineers/producers extend beyond the payrolls of major firms, acting instead as mentors to a new music generation, thus removing constraints on artistic freedom and moving the music industry to an elevated realm concerned with artistic expression. Such a shift in the democratization of the music industry may skew the relevance of competencies from a mixed balance set, i.e., the generalists, to the more artistic ones (music/creative) specializing in certain attributes such as improvisation for Jazz players.

The initial assumption that agency theory is at fault for the preference of cost over quality may also be misguided and premature. Ghosal and Moran (1996) criticized agency theory and managerial opportunism for assuming that there is no collaborative action between firms. Indeed, unison digital technology that combines hardware and software elements (analog and digital) is the product of research and development by a pioneering firm Universal Audio who has been supplying record labels with recording equipment since the 1950s. Agency theory assumes an

under-socialized view of human motivation. Instead, we could regard such innovative process as stemming from genuine good will and collective efforts at lowering cost, decreasing time expense, while raising obtainable quality levels to a benchmark sufficient for a “professional amateur” music entrepreneur to compete with established and new major industry players. The concept of purposeful adaptation comes to mind where shared purpose serves as a unifying element to formal organization that allow coordination and adoption in the same direction.

Likewise, under this study’s initial presuppositions, musician entrepreneurs are postulated to have a motivational interest to be independent of the larger music industry conglomerate. While justification for this can be found in the literature ranging from unfair financial contracts, it is also the case that the major record labels address complex coordination problems by bring in resources from various competency pools, to create cultural products greater than the sum of their parts. It is through the interplay and collaboration of songwriters, engineers, producers, directors, photographers, cinematographers, accountants, booking agents, executives, and digital artist that superstar artists are able to achieve a type of hyperreality in their works that captures the attentions of worldwide audiences. A production of such magnitudes and the kinds of social aggrandizement that artist receive as credit for hit songs that are instead the ensemble of multiple players in highly specialized niche roles, is not only highly desirable by many, but its magic-like quality may not be attainable by the lone wolf music artist who is comparatively limited as a musician entrepreneur.

The digital disruption conceivable from future technologies, along with the notion of a revolution towards an era of the artist entrepreneur becoming predominant, may serve as a detriment to the cultural landscape from a societal standpoint. Already there exists a multiplicity of musical content on streaming platforms, most of which goes un-played, and a preponderance

of musicians on social media who may be construed as cluttering up feeds with lackluster content, creating a fragmented music scene akin to an all you can eat buffet for music listeners who remain unsatisfied and hungry for music of legitimate sustenance for the soul. To the credit of this counterpoint, many popular music artists utilize newfound cultural success wealth to become entrepreneurs founding independent record labels with similar goals and objectives as major labels. Hence, future research studies could focus on better understanding the transformation that may take place when there are role reversals in the music industry such that the exploited worker becomes the exploiter boss, and associated effects on the broader culture.

5.4 Future Directions

A challenge to future research includes untangling the role of competencies and performance by analyzing covariates and including more specific controls at the artist/musician level as there may also be I/O type of effects caused by the nature of genre specific artists and their fanbase. Such controls may include tenure of the artist, fanbase size as indicated by monthly listeners on streaming platforms, and level of activity such as number of performances per year, including tour legs and dates, or number of albums released. One additional limitation is that we were unable to test the moderating effects of digitization versus digitalization, instead using a proxy for digital adoption/acceptance. There are multiple challenges associated with the construct of “digitalization” which warrant further research in terms of operationalization and which may have been at play in our dataset. For instance, we can take digitization to mean the use of ICT technology beyond digital platforms and social media, to include AI.

Blockchain and Artificial Intelligence (AI) do indeed offer yet another technological catalyst for musician entrepreneurs, yet the question of how blockchain and Music AI will be implemented and the consequences therein, remains a central challenge for firms and artist alike.

Our contribution to research and future directions as such is manifold bringing attention to the relevance of digitalization in transforming industries and illustrating the specific applications of digital technology in the music industry which may be applied to other technological innovations. Applying a critical theory perspective to analyze how new forms of digital acceptance may affect the relationship between musician competencies and performance in the future also remains a tenable direction to expand upon. For example, it may be the case that new technologies render business competencies less relevant than artistic ones, given the benefits of large language models (LLMs). With potential cross generational effects diluting and then eroding the necessity for humans to understand complex competencies, new tech forms such as AI may result in a dependency on technology for creation, resulting in musician processes coming under the purview of a forgotten knowledge of past masters.

Hence, this dissertation encourage music artist to be mindful of the blockchain and artificial intelligence digital narratives by engaging in information seeking research to weight all options with due diligence and critical thought. Critical thought in this context implies deep thought about the power structures at play and identifying who stands to benefit from the way the system is arranged, and in what manner. Blockchain and AI alike hold the promise of unlocking a revolutionary new way to go about our everyday affairs such as buying lunch or listening to music—or, entail a threat of substitution of one evil (culture industry) by another (artificial intelligence). Accordingly, this dissertation ultimately holds that disenfranchised music industry stakeholders, namely artist and consumers, should be working together to take back control of the world's biggest cultural export: Music. At the root of this call to action is the precondition that entrepreneurs have the right balance of competencies to succeed in their industry of choice.

The latest radical innovations, BC music files and AI music, is ripe with potential for creative destruction in the music markets (Acros 201; Shrumpter, 1942; Gough, 2018). Notably, the digitization of the music industry supply chain has provided artist entrepreneurs with an impetus for redefining cognitive schemas and adopting technology that can benefit self-managed careers. Blockchain and AI offers one such turning point for artist entrepreneurs, yet the efforts of music entrepreneurial firms to attract and recruit self-managed artist that provide platform content remains an obstacle in the way of mainstream adoption and financial profitability (O'Dair & Beaven, 2017). This study's contribution to research brings attention to the relevance of digitalization in transforming industries, applying entrepreneurship theories of balanced skill sets to an understudied class of entrepreneur, as well as overviewing the function of competencies in the music industry. Implication to the cutting-edge frontier of music industry acceptance and adoption may be predicated on a need for firms to upskill musicians in the market on the competencies needed to take advantage of the opportunities affronted by digitalization and new technological products or services offered by venture firms such as blockchain or AI. While there exist musician led academies online that teach subscribers production elements in music creation, there is a gap in the market for business to teach creative and business skills which properly activated may resulted in increased consumption of music services and goods from music firms and retailers. This exchange may fuel the fires for a future music revolution while stimulating the economy and providing society with a rich bedrock of culture upon which to carry forward into the next epoch of our civilization.

5.5 Concluding Remarks

The music industry is a staple of modern life and is not going away anytime soon. It is embedded in our culture often serving as the soundtrack to entertainment including cinema, large

social gathering such as festivals, and as the backdrop of our everyday lives. By applying business research theory to this industry, this dissertation hopes to provide solutions that may increase the lifespan of record labels, prolificity of artists, and the quality of music in the world.

We have explored the underlying mechanics of the music industry at the individual level of analysis by studying musicians within the context of Jack of All Trades theory. Findings from the literature indicate that this industry is marked by high periods of turbulence driven by technological innovation, shifts in market forces, updates in consumer preferences, and political regulation. Given the high degree of dynamism, it is impressive that musicians and record label firms alike have managed environmental pressures proving themselves resilient and enduring. While various theories have been used to explain phenomenon in the music industry (Resource Based View, Population Ecology, Social Capital), there remains a research gap in the music industry and entrepreneurship literature explaining and predicting how music industry players compete through digital transformation (Clemons, Gu, Lang, 2002).

Understanding salient applications of theories utilized in this dissertation bear important consequences. As a multibillion-dollar global industry that is consumed regularly, it has been posited that music can be utilized to supplement the sales of emerging markets as was demonstrated by Apple when they leveraged their iTunes platform with their smart phone and app market selling strategy (Morris, 2015). Telecommunication providers such as T-Mobile and AT&T have begun offering free music streaming data features as part of their consumer outreach efforts to secure a larger market share, remain competitive, and promote continued growth. Similarly, empowering independent music artists to have the reach and impact of superstars could help companies drive marketing campaigns and other outreach efforts with user specificity beyond that currently offered by marketing firms or popular influencers.

While our competency framework classifies important dimensions in cultural entrepreneurship including business and artistic competencies, our model outlines proposed relationships between these distinct antecedents, outcomes specific to the music industry, and proposes the way digitization may moderate or indeed modify the direction of such relationships. However, beyond labeling individuals with high artistic and business competencies as Artist Entrepreneurs and those with low competencies in both domains as Amateur Hobbyist, we have not yet fully addressed the nature of such combined attributes nor their implications on dual outcomes. Resulting from the moderating effects of digitization in the culture industries, ensuing democratization of supply chain elements, and increased knowledge sharing of music industry and business practices via the internet, this dissertation proposes that an artist will be cognitively driven to—and facilitated in the process of—acquiring lacking business competencies necessary to effectuate positive entrepreneurship outcomes extending to commercial and critical success. Further, the combination of robust Business Competencies and Artistic Competencies may result in a dualistic positive relationship with Performance Levels and Innovative Content greater than the relationship between each construct alone which may be associated with greater overall commercial success. Hence, nuanced research is necessary to better understand nuances therein.

Feats of global music success and entrepreneurial success in other domains of business are not outside the realm of human possibility and have been observed with individuals situated atop the pinnacle of cultural fame, wealth, and stardom. Take for instance, The Beatles who formed their own production venture Apple Corporation to release their own content and those of newcomer artist. To those who offer criticism noting that The Beatles had achieved commercial success prior to engaging in entrepreneurial activities, I propose consideration for a more contemporary entrepreneur in the hip-hop realm. Dr. Dre, a 90s artist entrepreneur crafted a

unique brand of original musical beats and lyrical rhymes which led him to co-found Death Row Records—a firm that gave birth to the gangster rap genre and transformed the popular musical landscape, and cultural centerstage, even to this day. However, Dr. Dre is a distinct entrepreneur in his own right as his ventures led him to co-found Beats Electronics, a multimillion-dollar enterprise that has partnerships with Apple and which has made Dr. Dre one of the richest African Americans in industry. The number one spot is reserved for another artist-entrepreneur that holds the distinctions of being the first African American billionaire in US history. Jay-Z achieved this by glamorizing hip-hop into its current popular blend of R&B, Gospel, and Rap with his record label Roc-A-Fella that also enjoyed commercial success by diversifying into other cultural industry sectors such as street fashion and digital technology.

Resulting, the extent of our research in this paper do not pose mere hypotheticals but encapsulate an attempt to explain cultural phenomena and the extent of human potential in achieving great heights of success that otherwise seem fabled or impossible. This study's entrepreneurship framework and research model contribute to research as they illustrate how Entrepreneurship Theories explain and predict the cultural phenomenon of Wealth and Fame in the creation industries and in doing so articulate the casual relationships and factors therein. This dissertation was able to shed insight on the research question of why some artist heed the call of the muse with business-laden gravitas and become artist-entrepreneurs, while the majority remain hobbyist, and still yet other partake in cultural ventures by aligning true with their proficiencies and working dedicatedly as content creators or content producers in teams with shared purpose but differing contributions. It is acknowledged that there remain limitations with this research including the fact that some content creator artist bypasses the entrepreneurial

process altogether and land major record deals for their 1st album debut as a result of going viral or being discovered, as was the case with teen pop star Justin Bieber in the early 2000s.

The causation underlying music performance for non-superstars (e.g., musician entrepreneurs) may be due to a recognition of authenticity of pure skill and talent which translates well on digital platforms. If so, this may lend credence to the optimistic view that Adorno's Culture Industry theory has not yet fully galvanized. Implications here include that social media platforms retain the potential to serve as an authentic medium whereby culture can be shared and enjoyed without the industrial mechanization of production subsuming genuine works of art through the sterilizing power of commodification.

Notably, findings generated through this dissertation may not effectively form parallel conclusions across all levels of musicians based on the self-reported performance outcomes obtained from Prolific. For example, regarding the subject of hobbyist or amateurs versus professionals, the point may be raised that we are restricted in our ability to judge content and its creativity based on established criterion that the culture industry has advanced for the past 100 years. Can we judge an account ran by an amateur hobbyist as such, simply because they do not have a seal of approval from the culture industry, or a paid for blue ribbon badge on social media? Perhaps the hobbyist underwent years of musical education and a tedious practice regiment. In which case, the amateur nonetheless takes his craft seriously and may indeed be a professional, albeit an unsuccessful one without marketability or financial success. Thus, we are taken back to the original problem at foot which the culture industry continues to muddle by effecting a capitalistic lens over all earthly matters, even those better relegated to the spiritual realms of human consciousness and soulful experientiality.

Ultimately, the Music Industry has demonstrated time and time again that the worlds of Art and Business hold subliminal power to influence and shape popular opinion, societal values, and challenge the status quo along with its governing power structures. Our analysis of artists, producers, the music consumers lead us to some interesting predictions regarding the evolution of the culture creation industry and implications for both practitioners and academics which may help shape the direction of culture at the societal level. In the context of the music industry, new forms of digitizing technology take on a particularly salient role as there have been multiple instances of technological disruption where a change in format dramatically altered consumer demand and supply chain structure. In the 21st century, society is observing the same paradigm of history repeating itself with music digital technology acceptance of blockchain/AI and other futuristic projects such as Elon Musk's Neuralink, urging the question: Have we learned from mistakes of the past or are we doomed to repeat them in some cosmic karmic cycle tethering us to the material world while reverberations of the sacred and profane whisper echoes in our ears.

Based on the critical postulate above, there might not seem to be an escape from the clutches of the culture industry. However, even Adorno notes that critical theory can be informed and revived by empirical evidence which this dissertation holds as a principal motivation. Therefore, music industry researchers ought not take theoretical exploration or theoretical testing as cannon. Instead, I forward an ethnographic treatise on art culture's post-modernist object-subject-reversal inversion as the functional paradigm through which neoliberal ideology may be actualized by capitalist subsumption of economic coordination activities by its operant subunits: How the administrative appendages of industry (including the music engage-ists explored here) playing the social media game—not fully formed, but in perpetual gestation—might become cognitively embodied through historical incorporation and ideological indoctrination into and out

from the music industry superstructure—one day detaching and taking knowledge and experience with it in order to independently maintain the macro-social utilities of production without the control of capital: A bottom up rather than top down purview for business modeling in the artistic realm.

Essentially, this can be thought of as a means by which ordinary people reclaim the tools of culture. There is evidence of it in the music industry as failing record sales cause music industry firms and middle men to go out of business, while artist continue to produce content and self-publish albeit at lower profit levels and with competition from everyone from teenagers to retired folk showcasing their talents on the internet. I term this phenomenon in the music industry, cultural subvection. It is a form of subversion whereby the authority and power structures can be hallowed out and emptied as the people that support these structures and institutions take over the operational mechanics and know how, but leave the edifice and its hallowed processes intact. It remains to be determined (empirically or philosophically) whether such as feat of liberation is still within the realm of human cunning and bravery. To practitioners, I recommend an acute awareness of the culture industry's mechanism and a resolution to stop the tirade of pastiche and mimicry in favor of unapologetically and unabashedly exploring the deep but rich recesses of the human spirit. For our society to truly advance in matters of consciousness, the digital tools that exert power and dominance over us must be understood first, technically through acquired competencies and intimately by means of continual praxis, if they are to be repurposed for a better tomorrow.

At the intersect of the culture creation industries and entrepreneurship, I find that competencies and digitalization help artist create market value around artistic works (Gidron & Kessels, 2019). Commercialization of innovative or radical cultural goods requires the creation

of markets for these novel goods to be tapped towards financial gain—ergo, both business and artistic acumen should be of primary concern and priority for musicians, technology firms, and educational institutions alike. That musicians with no major label backing, nor business education background, find ways to fortify their character with the competencies evidenced here, renders evidence of humanity’s undying struggle to reclaim its cultural heritage and sovereignty.

In the music industry content creators such as artists, musicians, or songwriters place priority on the artistic endeavor itself over its commercialization and profitability. This may be seen as being at diametric odds with producers and business executives whose job functions align closer with that of the classical entrepreneur. Yet, with the digitalization of music in the 21st century and lowered barriers to entry (Beck et.al, 2016), many artists taking up the risky agency-principal role are serving as both content creator and entrepreneurial agent working to vertically integrate many dimensions of the music value chain (i.e., financier, manager, marketer, and distributor). Nevertheless, the problem of value creation and the uncertainty inherent with musical entrepreneurial ventures remains an unequivocal “Moloch” to all industry parties who expend incalculable resources in the service of an ideal (whether musical or business). Our analysis of competencies native to 21st century hybrid artist-manager-entrepreneur leads us some interesting predictions regarding the evolution of the creation industries with implications for both practitioners and academics that may help shape the direction of culture at the societal level.

Alas, musician entrepreneurship is a highly complex phenomena but yet altogether one circumscribable by processes driven in stages and underscored by established theories such as Jack of All Trades, Transaction Cost Economics, or Resource Based View. Frameworks for the culture industries point to the creation of perceived value as quintessential for creative works to reach large audiences and followings. Value creation can be achieved through symbolic value

adding codification or value adding discourse/narrative via networks. Music industry firms such as record labels have historically used their network resources to bolster acts into the mainstream where millions in revenue can be sequestered, and perhaps so too can musician entrepreneurs.

With new entrants in the media domain, such as online reviews or social media sharing, musician entrepreneurs now have greater access to intermediaries through which to add value to their products and compete in the music industry, resulting in potential win-win outcomes for multiple players in the music industry game. Given the rate of technological progress, and potential for AI to reshape society, the music industry also provides a fertile ground with which to entertain modern socio-political concepts such as universal income and the kinds of productive roles that humans may take in future world states. The music industry is proof positive that the worlds of Art and Business are not only reconcilable but complimentary facets of the same coin with a subliminal power to influence and shape popular opinion, societal values, and the minds of generations. This salient point, in turn, reflects an auspicious potential for cultural entrepreneurs, rising from the ranks of mere individuals, to partake in a true democratization and grassroots reengineering of a shared global ideology.

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APPENDIX

APPENDIX

SURVEY INSTRUMENT

Welcome!,

This research study has been reviewed and approved by the Institutional Review Board for the Protection of Human Subjects (IRB) at the University of Texas Rio Grande Valley (UTRGV). The purpose of this study is to understand how performance outcomes are affected by musicians' artistic, business, and digital skillsets. Through a systematic analysis of many cases, your contribution can help us gain a better understanding of the real-world intersection between art, culture, and commerce.

To qualify, participants must have music content available on streaming platforms, such as Spotify. You must be at least 18 years old to participate. Participation in this research is completely voluntary. If there are any questions or parts of this study which you are uncomfortable completing, feel free to skip that question or terminate your participation at any time without question or comment. Responses and associated data will only be used for academic research purposes and will be anonymized, encrypted, and maintained strictly confidential on a secure server. We will not release any information that would identify you as a survey participant or let anyone know how you answered the survey questions.

If you have questions about the research, please contact Principal Investigator Aristeo Rodriguez by mobile at (956) 518-4266 or via email at Richard.A.Rodriguez01@utrgv.edu. You may also contact Dr. Sibin Wu, Faculty Advisor, by mobile at (956) 633-3559 or email at Sibin.Wu@utrgv.edu. For questions regarding your rights as a participant, please contact the Institutional Review Board (IRB) by telephone at (956) 665-2889 or email at IRB@utrgv.edu.

By proceeding to the questionnaire, you are providing consent to be a participant in this study.

- ☐ I agree
- ☐ I do not want to participate

Eligibility: Is your music (or music you contributed to), available on streaming platforms such as Spotify, or will your music become available for streaming within the next 12 months?

1-No 2-Yes

If you have a Prolific ID, please enter it here, otherwise select next.

Please note that this response should auto-fill with a unique ID.

Next, enter your Artist/Musician name (alias) or primary Band/Group name. You do not need to enter your full legal name unless that is your displayed artist name on streaming platforms and social media. For example: Beyonce, The Beatles, or Dolly Parton.

Do you have a social media account for your music such as Facebook, Instagram, Twitter, etc.?

1-No 2-Yes

Please share a link to your music on any major platform. For example, you can provide a link to your Spotify profile, Instagram account, YouTube page, or a LinkTree directory.

Which of the following best describes you as a music artist?

1-Signed, Major Record Label 2-Signed, Independent Record Label 3-Unclassified, Independent 4-Unclassified, Other

Which of the following best describes your music activities?

1-Professional 2-Semi-Professional 3-Amateur 4-Hobbyist 5-Other

Which of the following music related activities best describe your main roles and responsibilities. Select all that apply.

1-Artist in a Group/Band 2-Solo Artist 3-Singer 4-Songwriter 5-Musician/Instrumentalist 6-Music Producer 7-Audio Engineer 8-Manager 9-Technician 10-Other

Please answer the following demographic questions to the best of your ability.

What is your age?

1-Under 18 2-18 to 24 3-25 to 34 4-35 to 44 5-45 to 54 6-55 to 64 7-65 or above 8-Prefer not to answer.

What is the highest level of school you have completed or the highest degree you have received?

1-High school graduate (high school diploma or equivalent including GED) 2-Some college or an Associate degree 3-Bachelor's degree in college (4-year) 4-Graduate degree (Master, Doctoral, Professional) 5-Other

What is your gender?

1-Male 2-Female 3-Other

What is your ethnicity?

1-White, 2-Black or African American 3-Hispanic, Latino, or Spanish 4-American Indian or Alaskan Native 5-Asian 6-Native Hawaiian or Pacific Islander 7-Other

Information about income is very important to understand. Please indicate the answer that best describes your yearly income, before taxes.

1-Less than \$10,000 2-\$10,000 to \$50,000 3-\$50,000 to \$100,000 4-\$100,000 to \$150,000 5-\$150,000 to \$200,000 6-\$200,000 to \$250,000 7-Over \$250,000 8-Other

What is your employment status?

1-Self Employed 2-Employed full time 3-Employed part time 4-Working multiple jobs 5-Unemployed 6-Other

Start of Block: Opportunity Competencies

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I identify music products and music services that customers want.

I perceive unmet music customer/consumer needs.

I actively look for music products or services that provide real benefits to customers/consumers.

I seize high quality music business opportunities.

I evaluate the advantages and disadvantages of potential business opportunities in the music industry.

Start of Block: Music Theory

Please indicate your skill level ranging from far below average to far above average.

1-Far below average 2-Somewhat below average 3-Average 4-Somewhat above average 5-Far above average

My ability to analyze the elements, structure, quality, and stylistic characteristics of music from various periods, genres, through audio and visual means.

My ability to translate tones, melodies, rhythms, patterns, and multi-part chord progressions by ear.

My ability to use the technical vocabulary and terminology of music; and my ability to use the symbols of music fluently and accurately.

My ability to exhibit sensitivity to intonation, tuning, pitch, tempo, and rhythm while listening and adjusting in a musical performance.

My ability to recognize tonal idioms such as diatonic, chromatic, pentatonic, modal, and others.

This is an attention check to verify you are a real person. Which of the following is a vegetable?

Start of Block: Digital Attitude

For the next set of questions, digital music tools refer to resources such as: digital analog workstations (DAWs), recording plugins, digital instruments, emulators/modelers, generative A.I., etc.; digital music tools may also include digital distribution, social media marketing, platform monetization, e-commerce, etc.

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I would describe my feelings towards using digital music tools as a good or pleasant feeling.

I would describe digital music tools as improving my daily and work life.

I would consider using digital music tools as beneficial.

In my view, using digital music tools is a wise idea.

I would consider my openness to music originating from digital technologies as advantageous.

Please select four from the listed options. This is an attention check.

Start of Block: Non-Financial Performance

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

As a music artist, I create music related events and jobs for the community and contribute to the music community's development.

As a music artist, I have obtained listener/fan trust and confidence.

As a music artist, I have satisfied music consumers and customers.

As a music artist, I retain existing music fans and manage to attract new ones.

My reputation as a music artist in the eyes of the music customer/consumer has improved.

This is an attention check. Please show you are paying attention by selecting strongly disagree.

Start of Block: Relationship Competencies

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I develop long-term trusting relationships with others in the music community.

I interact, negotiate, and communicate effectively with others in the music community.

I resolve disputes among others and deal with complaints in the music community.

I build and use networks in the music community and maintain a personal network of music business contacts.

I create a distinctive image for myself in the music community.

Start of Block: Songwriting

Please indicate your skill level ranging from far below average to far above average.

1-Far below average 2-Somewhat below average 3-Average 4-Somewhat above average 5-Far above average

My ability to compose songs with lyrics and simple music accompaniments.

My ability to adapt and arrange vocal and instrumental music compositions.

My ability to discuss the timbre, range, and technical possibilities of various instruments.

My ability to discuss and apply the principles which govern the combinations of instruments, and ability to choose appropriate instrumentation for various types of compositions and performance.

My ability to transpose simple compositions on a major instrument or vocally, to a different music key.

Start of Block: Digital Usefulness

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

The quality of content created is important for me to adopt digital music tools.

Using digital music tools improves my music productions and live performances.

Digital music tools enhance or promote self-education.

Digital music tools allow me to complete music projects more quickly and efficiently.

Digital music tools are very useful for me to engage in the music community or music industry.

End of Block: Digital Usefulness

Start of Block: Financial Performance

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

As a music artist, I have observed overall business/career growth.

Sales are increasing for my music related goods and services (merchandise, recordings, subscriptions, live performances, etc.).

As a music artist, my financial condition is satisfactory

Profits are increasing for my music goods and services (merchandise, recordings, live performances, etc.).

As a music artist, I have low debt levels.

The color test you are about to take part in is very simple, you must select 'Green.' This is an attention check.

Start of Block: Organizing Competencies

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I plan recording, performances, and/or touring activities.

I supervise and lead music industry workers (for example: musicians, road crews, techs, audio engineers, etc.).

I plan, acquire, and organize different resources needed for music activities.

I organize and motivate musicians, team/crew members, and others in my music community.

I delegate music industry work, performance activities, and coordinate music tasks effectively.

For survey validity reasons, please select the correct statement from the list below. This is an attention check.

Start of Block: Performance Play

Please indicate your skill level ranging from far below average to far above average.

1-Far below average 2-Somewhat below average 3-Average 4-Somewhat above average 5-Far above average

My ability to perform a moderately advanced repertoire (a body of musical work) on primary instrument or vocally, with technical proficiency, reasonable mastery, and interpretive understanding.

My ability to perform music in small and large groups.

My ability to perform a variety of musical forms and styles, as developed through participation in a variety of music experiences.

My ability to understand and discuss the music problems encountered in group performances.

My ability to construct and recognize well balanced music set lists for different occasions and types of performances.

Start of Block: Digital Ease

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

It is easy to use digital music tools.

It is easy to get digital music tools to do what I want them to do.

I find digital music tools to be easy to use from anywhere and at anytime.

My interactions with digital music tools do not require a lot of mental effort.

Digital music tools provide flexibility.

Start of Block: Strategic Competencies

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I develop and establish my long-term direction as a music artist (for example: music business objectives, commercial goals, creative projects, collaborations, etc.).

I determine long-term issues, problems, or opportunities in the music industry and how changes might impact me as a music artist.

I redesign myself as a music artist to better meet long-term objectives and changes in the music industry.

I monitor my music career progress and evaluate results against strategic goals I set for myself.

I determine and align my strategic actions as a music artist by weighing costs and benefits.

Start of Block: Musicianship

Please indicate your skill level ranging from far below average to far above average.

1-Far below average 2-Somewhat below average 3-Average 4-Somewhat above average 5-Far above average

My ability to recognize and identify rhythmic and melodic patterns, both by ear and visually, when performing music.

My ability to notate melodies, rhythms, and harmonies of the type found in original works of music in my genre.

My ability to sight-read accompaniments and sight song (solfege/do-re-mi) tonal melodies without aid of a piano or other instrument.

My ability to incorporate other's playing through creative musical activities.

My ability to lead the development of music concepts.

Start of Block: Personal Strength Competencies

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I motivate myself to function at optimum level of performance and maintain a high energy level.

I function in useful stress environments and maintain a positive attitude.

I am able to work independently and prioritize tasks to manage my time.

I identify music artist strengths and weaknesses and match them with opportunities and threats in the music industry.

I recognize and work on my own shortcomings as a musician by responding to constructive criticism.

Start of Block: Creative Capturing

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I only record new music ideas when I'm ready to use them.

I set aside time every day to think of new music ideas.

I keep a recording device by my bed at night.

I always record new music ideas as they occur to me.

I sometimes make use of my dreams as a source of new music ideas.

This is an attention check. Please select moderately inaccurate for this item.

Start of Block: Behavioral Intent

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I intend to use digital music tools in the next three months.

I expect to reuse digital music tools in the future.

I intend to use different digital music tools, assuming I have access.

I will reuse digital music tools in the future.

I will use different digital music tools to search for music ideas, if necessary.

Start of Block: Product Success

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

Relative to objectives for my last music project, I was successful from a meeting deadlines standpoint.

Relative to objectives for my last music project, I was successful from an importance standpoint.

Relative to objectives for my last music project, I was successful from a strategic standpoint.

Relative to objectives for my last music project, I was successful in terms of listener/fan satisfaction.

Relative to objectives for my last music project, I was successful in terms of the overall outcome.

Start of Block: Improvisation

Please indicate your skill level ranging from far below average to far above average.

1-Far below average 2-Somewhat below average 3-Average 4-Somewhat above average 5-Far above average

My ability to create, invent, and develop original melodies, accompaniments, and short pieces without preparation in a variety of moods and styles, vocally and instrumentally.

My ability to elaborate and vary a given melody or progression without preparation, on a major instrument (piano, guitar, drums, voice, etc.).

My ability to improvise in small groups.

My ability to prepare independently for performance (within a reasonable limitation of time) a composition somewhat below the limits of my own technical ability.

My ability to improvise simple song accompaniments (freestyle, solos, riffs, breaks, etc.).

Start of Block: Creative Challenging

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I sometimes try to solve problems that, in principle, have no solution.

I manage stress quite well.

I am not afraid of failure.

I occasionally like to work on difficult problems.

When I set goals for myself, I make sure they're ambitious and open-ended.

Start of Block: Conducting

Please indicate your skill level ranging from far below average to far above average.

1-Far below average 2-Somewhat below average 3-Average 4-Somewhat above average 5-Far above average

My ability to lead or conduct small vocal harmonies and instrumental groups.

My ability to perform with accuracy and clarity the most common time signatures and meter patterns.

My ability to demonstrate effective performance techniques for a variety of musical forms, styles, and genres.

My ability to analyze errors and assist musicians and performers in correcting them.

My ability to apply knowledge of balance, blend, intonation, and tone quality to bring about correct and artistic interpretation of the music.

Start of Block: Creative Broadening

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I regularly read magazines, books, or other material in a wide variety of subject areas, including those outside my specialty.

I'm not afraid to learn new things.

I sometimes take courses on topics about which I know nothing at all.

I regularly surf the Internet to expand my knowledge.

It is important to me to continue learning throughout my life.

Start of Block: Movement

Please indicate your skill level ranging from far below average to far above average.

1-Far below average 2-Somewhat below average 3-Average 4-Somewhat above average 5-Far above average

My ability to express myself musically through movement or dance.

My ability to move expressively to music.

My ability to perform with poise, control, and good personal rapport in formal and informal situations.

My ability to execute on musical gestures, body posture, and body language.

My ability to coordinate performance delivery with stage props and stagecraft elements.

Start of Block: Behavioral Control

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I am confident that I know how to use digital music tools and resources.

Being able to use digital music tools encourages my use other digital music resources.

I have the adequate resources needed to use digital music tools.

A good financial standing encourages use of digital music tools.

Having the right music related resources encourages use of digital music tools.

Start of Block: Creative Surrounding

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

I try to meet new artists and musicians whenever possible.

When my thinking is unclear, I sometimes seek a change of scenery.

There are special places where I go to think.

I sometimes seek out unusual combinations of people to help stimulate my thinking.

I redecorate my work environment regularly or sometimes place unusual or novel items in my environment to stimulate my thinking.

Start of Block: Operational Performance

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

As a music artist I achieved growth in profits over the last three years (increased sales, paid performances, royalties, sponsorships, etc.)

As a music artist I achieved market growth in the last three years (increased plays, followers, concert attendees, etc.)

As a music artist I achieve return on investments or assets (music gear purchases, professional services like mixing or video recording, courses/ subscriptions, etc.)

As a music artist I achieve creation of new music content (songs, videos, concerts, appearances, livestreams, etc.)

As a music artist I achieve a return on contracted workers, employees, or labor costs (promoters, trainers, techs, management, etc.)

Start of Block: Social Desirability

Please indicate whether you find the statements to be true or false.

1-True 2-False

It is sometimes hard for me to go on with my work if I am not encouraged.

I sometimes feel resentful when I don't get my own way.

On a few occasions, I have given up doing something because I thought too little of my ability.

There have been times when I felt like rebelling against people in authority even though I knew they were right.

No matter who I'm talking to, I'm always a good listener.

There have been occasions when I took advantage of someone.

I'm always willing to admit it when I make a mistake.

I sometimes try to get even, rather than forgive and forget.

I am always courteous, even to people who are disagreeable.

I have never been irked when people expressed ideas very different from my own.

There have been times when I was quite jealous of the good fortune of others.

I am sometimes irritated by people who ask favors of me.

I have never deliberately said something that hurt someone's feelings.

Start of Block: Subjective Norm

Please indicate the extent to which you agree or disagree with the statements below.

1-Strong disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

People who influence my behavior think that I should use digital music tools/resources.

My friends' opinions have a strong influence on me.

People who are important to me think that I should use digital music tools and digital music resources.

The opinion from the general public is important to me.

People whose opinions I value prefer that I should use digital music tools/resources.

Start of Block: Debriefing Statement

Thank you for supporting world class research at the University of Texas Rio Grande Valley (UTRGV). Feel free to share the survey link with other music artists in your band or music community. In the event you would like to read more about the topic of this study, below are several articles you might find interesting:

1. Berg, J. M. (2022). One-hit wonders versus hit makers: Sustaining success in creative industries. *Administrative Science Quarterly*, 67(3), 630-673.
2. Hammonds, L. H., & Christensen, T. N. (2015). Jazz, Constructionism, and Music Composition: Building Cultural Competencies in a Global Classroom Through the Performing Arts. In *Globally Networked Teaching in the Humanities*, Routledge.
3. Reis, T. B. D. O., Klein, A., & Dantas, D. (2020). Entrepreneurial Competencies in the Creative Industry: A Study with Music Professionals. In *Academy of Management Proceedings* (Vol. 2020, No. 1, p. 19678).

Select next to finalize the survey and obtain the survey code.

BIOGRAPHICAL SKETCH

Richard Aristeo Rodriguez is a 1st generation Mexican American doctoral graduate from the University of Texas at Rio Grande Valley. Supplementing 10 years of corporate experience in analytics, operations, and management, Richard Rodriguez's educational background includes a Dual Bachelor's of Science in Biology and Philosophy from Rensselaer Polytechnic Institute, a Master's of Science in Health Sciences from the University of Texas at Rio Grande Valley, and as of August 2023 Aristeo Rodriguez earned a Ph.D. in Business Administration from the Robert C. Vackar College of Business and Entrepreneurship at UTRGV. Born and raised in Brownsville, Texas, under the alias "Artisteo – The One-Man Band" Aristeo Rodriguez has released multiple full-length records, performed as a solo-artist throughout the United States, and produced various local bands through his commercial music studio, Lomita Records. Dr. Rodriguez is next poised to embark upon entrepreneurship field research with the aim of bridging the worlds of art, commerce, and culture. In his personal time, Richard is a family man living the nuclear life with his love Norma Gaucin, daughter Melynda Claire, and their 2 cats Luke & Leia; he can be contacted via electronic correspondence by emailing: Artisteo@icloud.com.