

A STUDY OF CONSUMER  
BEHAVIOR OF DIGITAL MEDIA:  
USERS' PREFERENCE RELATED TO MEDIA FORMAT

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by  
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**APPROVAL PAGE**

The undersigned, appointed by the dean of the Graduate School, have examined the thesis entitled

A STUDY OF CONSUMER BEHAVIOR OF DIGITAL MEDIA: USERS' PREFERENCE RELATED TO MEDIA FORMAT

Presented by Jake Crowley,

A candidate for the degree of Textile and Apparel Masters of Science Degree, and hereby certify that, in their opinion, it is worthy of acceptance.

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To my wife Kathleen

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## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	ii
LIST OF TABLES .....	iv
CHAPTER 1: INTRODUCTION	
Digital Music Background .....	1
Purpose of the study .....	2
Significance of the study .....	3
CHAPTER 2: LITERATURE REVIEW	
Theoretical framework .....	4
Uses and gratifications .....	4
U&G in digital media .....	7
Digital music consumption .....	12
Music consumer profiles .....	16
CHAPTER 3: RESEARCH METHODOLOGY	
Sampling .....	22
Research design .....	24
Data analysis techniques .....	25
CHAPTER 4: RESULTS	
Survey respondents' demographic characteristics and frequencies .....	26
Results of reliability analysis .....	28
Results of profile preferences analysis .....	31
Results of motivating factors analysis .....	34
CHAPTER 5: SUMMARY, DISCUSSION AND IMPLICATION OF FINDINGS	
Summary of the study .....	38
Discussion of the major findings .....	39
Contributions and implication of findings .....	42
Study limitations and future research .....	44
APPENDIX	
1. SURVEY QUESTIONS .....	50
2. SURVEY QUESTIONS BY SCALE .....	53
3. IRB APPROVAL DOCUMENT .....	54
WORKS CITED .....	46

## LIST OF TABLES

Tables	Page
4.1 Demographic Descriptions & Average Monthly Music Purchase Behavior.....	26
4.2 Scale Reliability for Profiles and Motivating Factors .....	29
4.3 Music Purchase Behavior Related to Psychological Profile.....	32
4.4 Music Purchase Behavior Related to Motivating Factors .....	35

## CHAPTER 1: INTRODUCTION

The Recording Industry Association of America (RIAA) reports that in 2009 the sales of digitally downloaded singles were up by 18% compared with the previous year, and digitally downloaded album sales were up by 20%. This demonstrates overall growth for soft copy sales in 2009. In the same period, sales in the rest of the music industry were down. 2009 was another year when the popularity of buying digitally downloaded music increased while the popularity of buying physical CDs decreased. These trends began early in the new millennium and gained momentum as the first decade of the 2000s came to a close. However, regardless of the trends over the previous years and contrary to popular belief, in 2009 more music was purchased in the hard copy format than the soft copy format (RIAA, 2009).

The digital music revolution began in 1982, when Sony introduced the compact disc to consumers (Immink, 1998). Over the next several years, compact discs became the primary format for storing and listening to digital music. Meanwhile, personal computers and the Internet found a mass audience as well. In the late 1990s, due to the abundance of digital music, the capabilities of the Internet infrastructure, the large quantity of personal computers, and the availability of file sharing software, downloading of digital music became extremely popular. According to Ruggiero (2000), increases in quality and decreases in price of digitization have enabled widespread dissemination of electronic multimedia. There are two main ways in which people purchase digitized music. One consists of buying a hard copy of digitized music in the form of a compact disc (Immink, 1998). The other way involves downloading a soft copy of the digitized

music straight to a computer (Ferguson, Greer, and Reardon, 2007). Both methods are relatively new, and both require the same compression and formatting before music gets loaded onto a digital music player.

Initially the music recording industry reacted negatively to the craze of music downloading. After a very public anti-illegal downloading campaign the industry finally began to embrace the power of digital downloads. Just five years after Apple introduced their iTunes website, over a billion songs had been legally downloaded (Ferguson et al., 2007).

In response to the increasing popularity of digital music consumption, this study will explain the underlying motivations driving consumers' purchase preferences for hard or soft copies of digital music. Uses and gratification (U&G) theory, a mass media theory that has been used to study the underlying motivation for media usage, will serve as a theoretical framework for this study. Chang, Lee and Kim (2006) describe the theory as offering a framework that "explains media use in terms of expected positive outcomes, or gratifications" (p. 297). In early media communications research, this approach was conceived to better understand the satisfaction, fulfillment, and enjoyment that draw and hold audiences to a specific medium. U&G was employed to recognize the kinds of media and the sorts of content that satisfy individuals' social and psychological needs (Cantril, 1942). Since its conception, U&G, just like the types of media, has evolved. It was initially used to study radio and newspaper, then television, now many scholars use it to study internet and other digital media (Ruggiero, 2000).

To investigate the underlying motivation of consumers' digital music purchase, this study employed a survey methodology. Survey data was collected from college



students, faculty and staff at the University of Missouri. College students comprise a huge portion of the digital music consumers; thus, it is important to understand college students' media use (Peitz & Waelbroeck, 2005). However, through including faculty and staff in the data collection and analysis, this study gains a broader view of media use and consumption. Survey questions were designed to investigate why the consumers choose to purchase digital music through certain means or formats. The participants were asked to demonstrate their strength of preference through a Likert scale. Scale reliability analysis and regression analysis were used to analyze the study data.

The digital music industry is ever changing. Therefore, it is extremely important to understand how and why consumers purchase digital music in certain formats. The findings of this study provide several important implications. First, the results give important insights into how best to market digital music by identifying relationships between consumers and digital music. Second, the results may also help increase sales in the digital music industry by providing underlying purchase motivation. Third, the findings may help digital music consumers be more satisfied with the way they buy and store music. This study may also help guide the direction of the music industry in the future.

## CHAPTER 2: LITERATURE REVIEW

### Theoretical Framework

#### Theory of uses and gratifications

In order to investigate why consumers purchase hard copies of digital music rather than soft copies, the study utilizes the uses and gratifications (U&G) theory as its theoretical frame. U&G is a mass media theory that focuses on the media audience. The theory stemmed from media effects research (Ruggiero, 2000). U&G is an approach that examines the needs and satisfactions of media users through evaluating individuals' preferences and connections to a specific medium (Katz, Blumler and Gurevitch, 1974). A primary thesis of the U&G theory is that media consumers are active in their choice of media and content; thus, consumers' specific needs are satisfied through an exact medium (Ferguson, Greer, & Reardon, 2007). In other words, U&G explains why consumers choose a certain medium by investigating their perceptions on anticipated positive outcomes, or gratifications, of their media selection (Chang, et. al, 2006).

According to Ruggiero (2000), U&G was conceived in the 1940s out of a need to understand why audiences engaged in certain media behaviors. The earliest studies were generally descriptive and used to classify and categorize various audience members (Ruggiero, 2000). During this time period, the theory primarily dealt with classification of radio listeners and newspaper readers. Throughout the 1940s, researchers at Columbia University studied the effect of mass media on political behavior. From their studies, the researchers concluded that mass media played a fairly weak role in people's political decision making (Katz et al., 1974). These studies presented important results; however, they had little theoretical cohesion (Russell, 2002).

Regardless of the theory's slightly shaky foundation, the theory began to find traction in the 1950s and 1960s (Katz et al., 1974). It was during this period that many of the variables were identified and operationalized (Ruggiero, 2000). Due to the advances in the social and psychological variable literature, the theory was further refined and legitimized. Through the refinement of the theory, researchers were able to better analyze and generalize the findings than the previous U&G studies. It was no longer considered a simple categorical schema. Instead, U&G was evolving into a more refined approach through which valuable information could be discerned (Russell, 2002). Some researchers began investigating the differences between gratifications sought and gratifications obtained (Ruggiero, 2000). Others began to acknowledge that many of the consequences of media use are unintentional. Therefore, measuring an audience's tendencies can be more reliable than attempting to measure their intentions (Katz et al., 1974).

Blumler (1979) introduced several ideas that helped to focus the scope of the theory. These ideas addressed the social aspect of the U&G. Blumler (1979) explained the three primary social motivations of consumers' media involvement: normative influences, socially distributed life changes, and the individual's perception on the social circumstances. Blumler also argued "that cognitive motivation facilitated information gain and that diversion or escape motivation facilitated audience perceptions of the accuracy of social portrayals in entertainment programming" (Ruggiero, 2000, p.7).

Even as the theory took shape, researchers still called for a more rigorous application of it. One significant technological development that helped to improve the relevance of the theory in media research was the fact that computing power becomes

more readily available. Data analysis procedures became more complex, yet easier to perform (Russell, 2002); thus, researchers began using U&G as a predictive tool in media consumption (Ruggiero, 2000). Several researchers applied U&G to study consumers' television viewing habits. Ostman and Jeffers's (1980) study looked at lifestyle traits and television attitudes to delineate a predictive relationship of viewing motivations. Rubin's study categorized viewers as either ritualized or instrumental. Ritualized viewers were habitual and frequently viewed television. Instrumental viewers were decisive, discriminating and goal oriented in their viewing (Ferguson, et al., 2007).

In the mid 1980s, U&G continued on a path of audience inspection and understanding. Palmgreen (1984) combined U&G with media consumption theory, resulting in a more complex and complete picture of media behavior. Around the same time Levy and Windahl (1984) continued the study of audience and introduced ideas that link activity to orientation. The authors suggested that audience activity is based on social factors, media content, and media availability (Ferguson et al., 2007). Meanwhile, Rubin (1986) facilitated the concept that audience activity is not fixed, but variable, and that audience activity can change depending upon the type of media (Ruggiero, 2000).

U&G faced substantial criticism in its early days. For example, some of its earliest critics found fault with the theory, arguing that the research supporting it relied too heavily on consumers' self reports (Ruggiero, 2000). Other critics pointed out the lack of connection between the social origins of consumers' needs and gratifications being studied (Katz et al., 1974). U&G was further criticized for its inability to provide causal explanations or successful predictors of consumers' media choice (Russell, 2002). These along with other criticisms often limited the application of the theory. Recently,

however, researchers focused on the theory's ability to adapt to ever-changing forms of media, as witnessed in today's market environment, have embraced it for its adaptability (Ferguson et al., 2007). The theory may be usefully implemented in studying a variety of media, including "computers, video (VCR, movies and television), print (books, newspapers and magazines) and audio (radio and recorded music)" (Russell, 2002, p.16). More recently, it has been employed to study individual's relationships to the Internet and online gaming (Chang, Lee, & Kim, 2006).

### **Uses and Gratifications in digital media**

As the analog age gave way to the digital age, U&G continued to be useful. The diffusion and acceptance of digital media made available the opportunity to study this new form of media. According to Ferguson and colleagues (2007), the digital age has ushered in a period in which scholars have recognized the importance of U&G in studying new technologies such as the Internet. Ruggiero (2000) adds that U&G is an ideal theory for the twenty-first century especially in studying new media consumption, including digital media.

In 2000, Leung and Wei (2000) employed U&G to study the motivations behind cell phone use. The study uncovered certain predictors for consumers' cell phone adoption. Some of the predictors are instrumental (mobility and immediacy), while others are social (affection). Leung and Wei's (2000) study also addressed the issue of newer technologies replacing older ones. The authors found that many of the gratifications sought were similar for cell phone and land line use. However, the newer wireless technologies take advantage of independence through mobility; it also enables instant accessibility (Leung & Wei, 2000).

U&G is a central theory used to understand the audiences' motivations for adopting new technology-driven products and services (Leung & Wei, 2000). Therefore, as newer forms of media supplant older forms, U&G can be used to understand consumers' changing motivations for digital media consumption. The displacement of one technology by another is often a result of the newer technology's superior delivery method (Lin, 2004). The evolution of technology implies that current technology always has the possibility of being replaced by something else. The Internet is a technology that is rapidly evolving and has been studied at length using U&G (Ruggiero, 2000).

Lin (2002) proposed that online media is a functional supplement to traditional media, and not a compliment or a pure substitute. The study published in 2002 argued that online access was not related to reductions in use of traditional media. The study compared the behavior of surfing TV channels to that of surfing the Internet. There are similarities between the two; both involve the browsing of content (Lin, 2002). However, Lin (2002) points out the fact that online surfing requires much greater cognitive involvement due to the interactive nature of the online environment.

The online environment continues to evolve, and so does the theory surrounding that medium. In a study conducted in 2004, Lin reevaluates the position that the Internet is a supplement to traditional media. The "erosion phenomenon reflects the media substitution mechanism, which is symptomatic of a natural progression" (Lin, 2004, p. 450). Lin identifies webcasting as having reinvented the conventional broadcasting platform. Online media, Lin asserts, can be a true substitute for traditional media (Lin, 2004).

Many other studies have suggested that new technologies will replace old ones. Ferguson and colleagues (2007) employed U&G to examine the relationship between MP3 use and radio use. Their study found that the use of digital audio devices is a clear substitute for traditional radio use (Ferguson et al., 2007). The study mentions that MP3 users have not stopped listening to radio entirely, but that “there was a significant difference in the amount of time iPod owners spent listening to their players compared with time in a day they estimated listening to radio stations” (Ferguson et al., 2007, p. 116).

Ferguson and colleagues (2007) also identify the motivating factors behind using mobile digital audio devices, such as MP3 players and iPods, are: boredom, loneliness, stimulation, entertainment, and relaxation. Thematically there are similarities between their findings and North and Oishi’s (2006) findings that identify psychological motivations for purchasing music.

Process oriented gratifications are those attained from a pleasurable media experience (Cutler & Danowski, 1980). Process gratifications focus on the consumption of the medium, and engage the user by pulling them away from the outside world, in essence distracting or diverting users from their lives. Process oriented gratifications theory is a broad subcategory of the U&G theory. It is an over arching idea which can encompass many individual motivating factors such as the diversion gratification. Song, Larose, Eastin, & Lin (2004) discuss gratifications related to Internet use and the potential for media overuse. Their 2004 study identifies the diversion gratification as a powerful motivator for media use.

The gratifications Ferguson and colleagues (2007) discuss in their study about motivation for MP3 player use are linked to the concept of process gratifications and particularly the diversion gratification. Specifically, entertainment, boredom, loneliness and relaxation, are associated with the diversion gratification (Song et al., 2004). Zang (2011, p 100) asserted “when applied to the use of MP3 players, examples of process gratification include listening for fun and relaxation, for relief of boredom and loneliness.” Individuals motivated to relieve boredom through the interaction with a specific medium may do so as a means to escape or distract from their everyday life. Song and colleagues (2004) discuss how motivations for engaging in media use for diversionary reasons can evolve over time. The initial motivation may be to escape, but as individuals repeatedly engage in the diversion behavior, the use can become habitual.

Zang’s (2011) study on MP3 player use identifies loneliness as a diversion gratification which is a part of the companionship construct. According to Zang (2011) MP3 players were instrumental in creating a world that separated users from what was occurring in reality. MP3 players were used to both, screen out irrelevant people that happened to be in the same environment and to help users overcome loneliness. Chen’s (1998) research on the use of Walkman, an analog personal audio device, revealed that users of that technology viewed the device as a companion, and as a means to cope with loneliness.

The motivating factors Ferguson and colleagues (2007) identified are conceptually somewhat overlapping. The stimulation motivating factor is related to Zang’s (2011) concept of companionship or loneliness. An individual’s need for stimulation may affect what media content is selected or shared (Hanson & Haridakis,



2008). Stimulation, meanwhile, is also related to entertainment. According to Krcmar & Green (1999) viewing television can be simultaneously entertaining and stimulating. Along with that, Zang's (2011) entertainment motivating factor encompasses nearly all of Ferguson's (2007) separate motivating factors. According to Zang the entertainment factor "included statements on feeling entertained, feeling relaxed, relieving boredom, having fun, and passing time" (Zang, 2011, p. 104). Regardless of the nuances, process oriented gratifications and diversion gratifications are identified throughout media research as important factors for media use, and can help identify why users select a specific medium.

Another important finding from Ferguson and colleagues study of MP3 use was that over 30% of the respondents to their survey indicated that they purchase music for their iPods once a week. The study also found that nearly 20% of the participants did not download music at all, this might suggest that iPod users are loading their iPods with music transferred from a CD. Furthermore the authors point out that continued exploration of how iPod users acquire content for their devices is necessary.

Despite much research on consumers' uses of digital media, and the gratifications that drive them, a large portion of the research is centered on whether a newer form of technology will replace an older in various digital media (Ferguson et al., 2007; Lin, 2002; Lin, 2004; Leung & Wei, 2000; Ruggiero, 2000; Russell, 2002). However, little is known about consumers' purchase preference on hard or soft copies of digital music. Consequently, the study adopts U&G as a theoretical framework to identify gratifications sought through the use of different distribution formats of digital music.

## **Digital Music Consumption**

Since the advent of the Internet, there has been a wide range of research conducted concerning its different applications. Due to the numerous retail possibilities, much research has dealt with online consumer preferences. In Korgaonkar, Silverblatt, and Girard's (2006) study investigating online retailing and product classifications, they describe the three product categories that all products purchased through the Internet come from.

These categories from Korgaonkar, Silverblatt, and Girard's (2006) study consist of search, experience, and credence products. Search products are those that a consumer can assess the quality of without having to physically inspect. The key attributes of these products contain enough information to determine the level of product quality.

Korgaonkar and colleagues (2006) use the examples of books and personal computers when explaining the essence of a search product. Experience products are different from search in the fact that they must be inspected or experienced prior to purchase. Clothing and perfume are both objects that typify experience products. Finally, credence products are difficult to evaluate either before or after consumption (Korgaonkar et al., 2006). The examples that might represent this category are vitamins or water purifiers.

Srinivasan and Till (2002) acknowledge that products may embody some or all of these attributes. From this perspective, digital music is considered a search product in that the quality of the music does not have to be physically inspected prior to purchase.

### **Distribution channel of digital music**

Even with the number of downloads growing rapidly; it still leaves a large portion of physical copies of music that will be purchased. In exploring in which format

consumers prefer to purchase digital music, it is important to understand which retail distribution channel for digital music consumption is preferred. Soft copies of music are purchased exclusively through the internet. However, hard copies of music can be purchased through either brick and mortar retail outlets or websites selling and shipping physical copies of music. If a consumer has a strong preference for Internet shopping, it may indicate that he or she is more likely to download music through the Internet.

Peterson, Balasubramanian, and Bronnenberg (1997) identify the three factors that help establish through which channel a product will be consumed. Peterson and his colleagues' three dimensional product classification model is supposed to classify which products are suited for the Internet or brick and mortar consumption. The dimensions used in this study are cost, value proposition, and degree of differentiation (Peterson et al., 1997).

For many consumers, when deciding whether to purchase merchandise via the Internet or at a brick and mortar, cost and degree of differentiation are important for the decision making process (Peterson et al., 1997). However, when purchasing digital content, cost and degree of differentiation may not be as important because there is a negligible amount of difference between the cost of a digitally downloaded album and an album purchased at a retail store. Similarly, the degree of differentiation (of sound quality) between soft and hard copies of music is relatively low (Vijayarathy, 2000). Downloaded music has some degradation due to the compression process. However, the amount of loss is usually insignificant and unnoticeable (Zadeh, Wang, & Kubica, 2008).

Therefore, Peterson and colleagues' (1997) point out that the important deciding factor for music purchase is the value proposition. The value proposition refers to a

product falling into one of two categories, tangible or intangible. Peterson and colleagues state that “goods vary along the second dimension according to their value proposition, whether they are tangible and physical or intangible and service related” (Peterson et. al, 1997 p. 336). Tangibility in regards to digital music is more often than not questionable; and it is a topic that scholars fail to agree upon. Vijayasathy (2000) states that digital music is an intangible good. However, Shostack (1977) argues that the definition of “intangible” keeps it from being a good. Styven (2007) believes that music on the Internet is basically becoming a service as opposed to a physical, tangible good; thus, digital music is intangible. North and his colleague (2006), on the other hand, approach digital music from the standpoint that it is a tactile object. Whether digital music is tangible or intangible is an important matter as it affects the value proposition of digital music. The next section discusses the tangibility of digital music in greater length.

### **Tangibility of digital music**

In a consumer-oriented society, with so much emphasis placed on ownership of goods, the tangible aspect of digital music is an important one to consider. According to Evans (2003), music fans are tactile beings and enjoy holding and touching a compact disc as the physical facet helps them to connect with the music. Another important aspect to purchasing physical copies of music is the social component. When buying a physical album, there is usually a face-to-face interaction with friends or sales people, and consumers may enjoy this social aspect of purchasing hard copies of music.

There are also negative aspects to consuming music in its physical form. One such aspect is the postponed consumption of that medium (Styven, 2007). Postponing the consumption delays the consumer’s gratifications and can potentially impact the

satisfaction of the user. Another negative aspect to hard copies of music is the potential for misplacing the music and the possibility of damaging the physical object where music is stored. Compact discs are notorious for getting scratched and not playing.

Downloaded music, or soft copies of music, also has its downsides. It does not offer the consumers anything to hold in their hands. Digitally downloaded music is difficult to price as intangible objects are considerably harder to appraise due to the abstract nature of the object (Styven, 2007). Intangibility can also lead to difficulties in ownership, patents and copyrights (Styven, 2007). One example of copyright issues was reported on in 2007 by the BBC. The BBC reported that Russian companies are selling copyrighted music via the Internet. These companies exist legitimately in Russia, but, according to American and British recording companies, they violate international copyright laws (BBC News, 2007). Intangibility can also lead to levels of uncertainty and risk, such as fraudulent websites, or corrupted data (Styven, 2007).

On the other hand, downloading digital music has many appealing features. One positive attribute is its accelerated distribution, providing consumers with instant gratification. The Internet is an ideal distribution channel for digital music (Vijayarathy, 2000). Individuals can sample portions of songs online and can instantaneously gain access to entire albums. Another positive aspect is that it is less likely that the soft copy of music will be misplaced as it does not exist in any sorts of physical form.

In a paper written well before the Internet or digital music became popular, Shostack (1977) argued that “a market entity can be partly tangible and partly intangible without diminishing the importance of either characteristic” (p. 76). For example,

airlines and automobiles are referred to as intangible and tangible goods, respectively. If Shostack's (1977) paper were rewritten today, digital downloads and compact discs could be substituted for the intangible and tangible examples.

Peterson and colleagues' (1997) value proposition is an important aspect in understanding why consumers may prefer a certain distribution platform for digital music. The tangibility and intangibility of music plays a very prominent role in the digital music purchase decision making process. Understanding how the value proposition impacts consumers' gratifications is paramount in determining which digital music medium is preferred.

## **Research Questions**

### **Psychological aspect of music purchase**

This study aims to explore why consumers purchase physical or hard copies of music rather than soft copies. First, following U&G theory, the study includes an exploratory question examining the relationship between motivation for using MP3 players and the users' choices of music format, either hard copies or soft.

Second, given that consumers actively and selectively choose the medium and content to meet their certain needs (U&G) and that the distribution format of digital music is an important factor for consumers' purchase preference, understanding the psychological motivation behind consumers' purchase decisions is critical.

North and Oishi (2006) evaluate consumers' music purchase motivation from a psychological perspective. Their study deals exclusively with why consumers purchase digital music in the form of compact discs. Though this study neglects one of the critical

music distribution methods, digital downloads, it does shed light on why consumers purchase digital music. According to North and Oishi's (2006) findings, there are four basic psychological profiles of consumers who purchase music: (a) sensation seeking, (b) compliance, (c) innovativeness, and (d) involvement. These profiles or categories are by no means exhaustive or mutually exclusive. Instead, these profiles are designed to simplify a broader set of music consumers' behavioral factors to explain the psychological state of the consumers and the source of the motivation for their purchase decision (North & Oishi, 2006).

The first psychological factor of music consumers' purchase decisions is "sensation seeking." Zuckerman (1990) defines sensation seeking as a "trait characterized by the need for varied, novel and complex sensations and experience, and the willingness to take physical and social risks for the sake of such experience" (p. 313). Stimulation is one of the predicting motivators in music listening behavior (Ferguson et al., 2007). According to North and Oishi (2006) sensation seekers are motivated by a very specific feeling that they are looking to attain by consuming music. Thus, sensation seekers purchase music because they are interested in re-experiencing a level of psychological arousal, a need for complex stimulation that often results in a preference for louder and more arousing music (Arnett, 1991).

The level of the individual's sensation seeking impacts his or her involvement with the Internet. Individuals who score low on a sensation seeking scale are more likely to be active with the Internet, heavily engaging in the frequent use of email, chat rooms, and cyber-sex sites (Lavin, Marvin, & McLarney, 1999; Yuen & Lavin, 2004). Conversely, individuals who score high on a sensation seeking scale tend to seek physical

thrills and excitement; thus they are less likely to engage in heavy Internet use (Yuen & Lavin, 2004). Yuen & Lavin (2004) propose that “physical thrills do not motivate low sensation seeking Internet dependents” (p.380).

Consequently, this study hypothesizes:

H1: Sensation seekers will more likely prefer to purchase digital music in a hard copy format rather than in a soft copy format.

The second psychological factor behind music consumers’ purchase decisions is social compliance (North & Oishi, 2006). This motivational factor deals with interpersonal relationships in explaining certain social aspects of music purchasing behavior. Compliance is a public submissiveness without a private acceptance, obedience or passiveness, and a willingness to concede to other individuals’ points of view (Aebischer, Hewstone, & Henderson, 1984). Compliance can also be seen as a social pressure from within a social group or outside a social group (Tarrant, North, & Hargreaves, 2001). Specifically, Vijayasathy and Jones (2000) refer to this concept as the “subjective norm component (individuals’ perception of what important other people think about... when shopping for music)” (p.31). In addition, digital audio devices may serve an interpersonal communication function (Ferguson et al., 2007).

In this light, consumers who fall under the compliance/conformity category typically look to others for reasons to purchase music (North & Oishi, 2006). Particularly, Tarrant, North, & Hargreaves (2001) also found that the participants with lower self-esteem were more susceptible to in-group influence, while the participants with higher self-esteem were less affected by their peers in their music purchase decisions. Interestingly, in-group influence is found to be more powerful than out-group



influence, regardless of the level of self-esteem (Tarrant, North, & Hargreaves, 2001). Similarly, a smaller social group's musical influence generates a different cognitive response than the influence created by a majority (Aebischer, Hewstone, & Henderson, 1984). Certain groups outside the majority can have a stronger influence on music than the mainstream itself. Musical preference may even help determine social ties. North and Oishi (2006) state: "liking a particular musical style may represent an actual characteristic of group membership" (p.3059). Thus, "friendship" plays an important social role in music purchase decisions by providing a high level of social compliance to music consumers. The format of digital music (either hard copies or soft copies) will be of less interest to compliant individuals.

Consequently, this study hypothesizes:

H2: Individuals who seek compliance will be less likely affected by the distribution format of music (hard copies or soft copies) in digital music purchase preference.

The third psychological factor influencing music consumers' purchase decisions is innovativeness (North & Oishi, 2006). Innovative consumers are much like mavens (Gladwell, 2000). They are the first to purchase a new product and they are likely to talk to others about this product.

Innovativeness is a trait in which many innovators share certain demographic characteristics (Lin, 2004). According to Lin (2004), typical individuals who adopted video web casting were usually between the age of 25 and 44; they were likely to make online purchases and had received some college education. These innovation adopters

were 56% male and 44% female (Lin, 2004). However, simply adopting certain technologies does not necessarily constitute innovativeness in an individual. There are specific identifiable personality traits that make up innovators (Robertson & Kennedy, 1968). Innovators are daring, socially mobile, and willing to take inventive risks (Lin, 2004). An individual's creative thinking ability and high intelligence also make them more likely to engage in innovative activities (Dickerson & Gentry, 1983). Innovators are more likely to accept, try and master new technologies; they are also likely to seek stimulation and new information (MacEvoy, 1994).

Thus, innovators are early adopters and eager to investigate music through other media. Innovators use their knowledge of music as a social platform (North & Oishi 2006). Flynn and colleagues (1993) refer to these innovators as opinion leaders. They are the individuals who are more likely to spend time, money, and energy on music consumption. Innovators play an important role in influencing others' purchasing decision. Unlike social compliances, however, these innovators are less likely influenced by friendship. Innovators more likely lead rather than follow others' opinions, accepting and mastering new technologies (MacEvoy, 1994; North & Oishi, 2006). Innovators spend time discovering new technologies and are likely to investigate music online.

Consequently, this study hypothesizes:

H3: Innovators will more likely have a preference for soft copies of digital music.

The fourth psychological factor affecting music consumers' purchase decisions is involvement (O'Cass, 2000). The construct of involvement has been researched since the 1960s. Involvement is defined as "the extent to which the consumer views the focal

object as a central part of their life, a meaningful and engaging object in their life and important to them” (O’Cass, 2000, p.550). Involvement research has been used to gain further insight into the effect involvement has on purchasing decisions and consumer behaviors (O’Cass, 2000). Involvement has been recognized as being at the heart of the person-object relationship and the relational variable most predictive of purchase behavior (Martin, 1998).

According to O’Cass (2000) an individual can be involved with several different aspects of the purchase process. Consumption of the product, communications (advertisements) for the product, and the purchase decision are all different types of involvement (Mittal, 1989). Together, the various involvement types can help create a profile of consumer involvement (O’Cass, 2000). In the music consumption setting, North and Oishi (2006) argue that involvement is a primary motivating element for music consumers. The involvement concept in relation to music refers to people whose lives are impacted through the different aspects of music purchase process (North & Oishi 2006). The individuals whose lives are involved with music may listen to music for hours every day; they may frequently attend concerts and might purchase large volumes of music (Dixon, 1980).

Consequently, this study hypothesizes:

H4: Involved individuals will be less likely affected by the format of music (hard copies or soft copies) in digital music purchase preference.

## CHAPTER 3: METHODOLOGY

To investigate why consumers choose to purchase hard or soft copies of digital music, an online survey methodology was employed. Online administration of the survey is appropriate for this study for several reasons. First, Hewson and colleagues argue that the research administered via the Internet is as valid as research that is not administered online. There are examples of similar findings between Internet and non-Internet samples (Hewson, Yule, Laurent, & Vogel, 2003). Second, online survey provides time and energy savings, and access to a large and diverse population of potential participants in an efficient way (Hewson, et. al, 2003).

### **Sample and data collection:**

A convenience sample was gathered from individuals affiliated with the University of Missouri. The survey was electronically distributed to undergraduate students, graduate and professional students, faculty and staff. College students are a vital music consuming demographic, this is why it is important to include them in the sample. According to Peitz and Waelbroeck (2005) college students “represent an important share of music buyers; also they typically are leaders in technology adoption so that future trends for the whole population can be anticipated by analyzing students’ behavior” (Peitz & Waelbroeck, 2005 p.417). In addition to undergraduate and graduate students, this survey also reached faculty and staff at the University. The inclusion of non-student participants is important because it gives added insight into how broader segments of the population interact with media.

The sample was collected electronically. To start, a mass email went out to all students, faculty and staff in the form of an announcement entitled MU Info. The MU

Info announcement contained several messages and was delivered on April 27, 2011. Of all the messages contained in the MU Info, the recruitment message was positioned as the fourth message. It described what the survey was about and what the data would be used for. The recruitment message contained a link, that when clicked, took participants to the online survey. The online survey remained accessible for two weeks, and was no longer available after May 11, 2011.

### **Survey:**

The survey consisted of approximately 50 questions. The questions contained in the survey were answered through indicating strength of preference for distribution format of digital music purchase. A 5-point Likert scale was used and produced interval data that was regressed to determine relationships among the data. Some applicable questions from North and Oshi (2006) were used in the design of the questionnaire. Other questions were taken from Ferguson and colleagues (2007) study of MP3 use. The authors identify the items as “uses and gratifications statements”. The questions from North and Oshi’s (2006) study were modified. New questions were added to address the tangible, intangible nature of digital music. For example, questions about respondents’ internet use, internet listening habits, propensity to purchase tangible and intangible goods, and music purchase preferences have been added. These questions are needed to identify which type of music consumer the participants are. The supplementary questions also quantify the respondents’ relationship with the Internet and music.

To obtain respondents’ demographic information, survey questions include questions about age, race and sex. See appendix A for the study survey questions.

### **Data Analysis:**

Reliability analysis was used to establish the internal consistency of the scales and survey instruments. This analysis was used to gauge reliability for purchase preference of hard and soft copies of music, music purchase motivating factors (uses and gratifications) and music purchase psychological profiles.

Interval level data were collected for this study, however if other types of data (ordinal or nominal) had been collected then other forms of analysis may have been preferable. The collection of interval level data made it possible to conduct regression analysis. Regression is appropriate because it determines predictability across variables (Waigandt, 2004). It is often used as a method for measuring the link between two or more phenomena. Kleinbaum and colleagues (2008) explain that regression techniques are often used in quantitative based research for several reasons. They are widely applicable. They can be straightforward to execute. Other more advanced statistical procedures can be used once regression is completed. Regression analysis is a multivariable technique, and is often employed for the statistical analysis of relationships. This technique can be especially useful when analyzing at least three variables (Kleinbaum et al., 2008). This research collected interval level data for the dependent variable and consisted of multiple independent variables; therefore regression analysis was determined to be the most useful form of analysis.

## CHAPTER 4: RESULTS

This section includes (a) description of the sample including demographic characteristics and purchase behavior, (b) reliability of survey instruments, (c) consumers' psychological profile on music purchase preference, and (d) consumers' music purchase motivating factors on music purchase preference.

### **Descriptions of Sample**

A total of 391 participants responded to the online survey in spring 2011. There were eight responses which contained missing values. Of the responses with missing values, two may have been a result of random missing value since the respondents may have inadvertently not answered some questions. Whereas 6 of the 8 missing responses contained multiple items with missing values which indicated that the survey was abandoned during the completion process. The responses with missing values could potentially corrupt the results of the present study. As a result, all eight incomplete responses were removed from the data file and were not used for analysis. This incomplete response removal process left only completed responses for all of the participants and reduced the sample size from 391 to 383.

The vast majority of the participants in this study were female with 285 (74.4%) of the respondents selecting female as their gender. While only 98 (25.6%) of the respondents selected male as their gender. The female dominated participation rate may be a limitation of this study and will be discussed further in Chapter 5. The majority of respondents, 327 (85.4%), indicated that their ethnicity is Caucasian, 21 (5.5%) selected African American, 12 (3.1%) selected Other, 11 (2.9%) selected Hispanic, 10 (2.6%) indicated Asian or Pacific Islander, and 2 (0.5%) indicated Native American.

The average age of the participants in this study was 30.26 years old at the time the survey was taken. The youngest participant was 18 years old and the most senior participant was 70 years old. The respondents indicated that on average they purchase 6.03 soft copy singles or songs per month. They, on average, purchase 1.28 soft copy albums per month and around half as many (0.60) hard copy albums per month. Table 4.1 shows demographic descriptions of the study sample.

**TABLE 4.1**  
**Survey Respondents' Demographic Descriptions and the**  
**Average Monthly Music Purchase Behavior**

		<b>Frequency</b>	<b>Percentage</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Gender</b>	Male	98	25.59%		
	Female	285	74.41%		
<b>Ethnicity</b>	Asian/Pacific Islander	10	2.60%		
	African-American	21	5.50%		
	Native American	2	0.50%		
	Hispanic	11	2.90%		
	Caucasian, non-Hispanic	327	85.40%		
	Other	12	3.10%		
	<b>Age</b>				30.26
<hr/>					
<b>Average Monthly Purchase Behavior (in units)</b>					
	Soft Copy Singles			6.03	11.48
	Soft Copy Albums			1.28	5.39
	Hard Copy Albums			.60	1.28



## **Reliability of Survey Instruments**

Reliability analysis was used to determine the internal consistency of the scales or survey instruments. This analysis was used to measure reliability for purchase preference of hard and soft copies of music, music purchase motivating factors (uses and gratifications) and music purchase psychological profiles. According to Cortina (1993), an acceptable reliability coefficient is typically greater than 0.70. However, depending on the analysis the adequate range for the coefficient may vary.

The scale used to measure purchase preference for hard copies of digital music contained 6 items and had a reliability coefficient (or Cronbach's alpha) of 0.789. The purchase preference scale for soft copies of digital music consisted of 4 items and had a reliability coefficient of 0.745.

Each of the five U&G scales used to measure motivating factors for music purchase had acceptable levels of internal reliability. The U&G music purchase motivating factors scale for relaxation had 6 items and a reliability coefficient of 0.890. The U&G stimulation scale had 6 items and a reliability coefficient of 0.855. The U&G entertainment scale had 3 items and had a reliability coefficient of 0.849. The U&G loneliness scale had 3 items and had a reliability coefficient of 0.774. The U&G boredom scale had 3 items and had a reliability coefficient of 0.810.

Three of the four scales used to measure psychological profiles for music purchases maintained a good level of internal reliability. The sensation seeking scale consisted of 6 items and had a reliability coefficient of 0.702. The compliance scale had 4 items and had a reliability coefficient of 0.788. The innovativeness scale had 4 items and a reliability coefficient of 0.734. The involvement scale initially consisted of 4

items. However, 2 of the 4 questions had very poor measurements and, to improve the internal reliability, these two poor items were removed. Each item that was removed was worded in an unusual somewhat confusing manner. Another issue that may have led to these items having poor measurement is that the term “DJ” is not frequently used and may have also been somewhat confusing. The two items that were removed were “I don’t like radio DJs' choice of music; I prefer to listen to music of my choice” and “I have the artist’s other music, which I like listening to”. The removal of these items increased the reliability coefficient to 0.525. All the scales were then averaged to be used for further analysis. Table 4.2 illustrates the means and scale reliability for music consumer profiles and motivating factors for music purchase.

**TABLE 4.2**

**Means and Scale Reliability for Music Consumer Profiles and Motivating Factors  
for Music Purchase**

<b>Dependant Variables</b>		<b>Mean</b>	<b>Variance</b>	<b>Std. Deviation</b>	<b>N of Items</b>	<b>Cronbach's alpha</b>
<b>Music Purchase Preference</b>						
	Hard Copy	3.09	0.58	0.76	6	0.789
	Soft Copy	3.73	0.65	0.81	4	0.745
<b>Music Purchase Motivating Factors</b>						
	Relaxation	3.61	0.70	0.83	6	0.890
	Stimulation	2.84	0.64	0.80	6	0.855
	Entertainment	4.10	0.54	0.73	3	0.849
	Loneliness	2.46	0.80	0.89	3	0.774
	Boredom	3.12	0.92	0.96	3	0.810
<b>Music Purchase Psychological Profiles</b>						
	Sensation Seeking	3.62	0.50	0.70	6	0.702
	Compliance	3.41	0.80	0.89	4	0.788
	Involvement	4.19	0.31	0.56	2	0.525
	Innovativeness	3.40	0.29	0.54	4	0.734

## Tests of the Study Hypotheses

### Impact of consumers' psychological profile on music purchase preference

Regression analyses were conducted to demonstrate whether the psychological profiles of music consumers are predictive of their preference to hard or soft copies of music. All the profiles were regressed against preference to hard and soft copies of music. Results from the regression show that all the profiles, except compliance, are statistically significant predictors of preference for hard and soft copies of music.

For hard copy music preference, the regression results indicate a statistically significant positive relationship between innovators and their preference to hard copies of music (standardized  $\beta=.454$ ,  $p=.000$ ). Innovativeness had the largest impact on purchase preference, and the more the consumers' tendency for innovativeness the more, likely they would prefer hard copy music. The analysis identified the statistically significant negative relationship between individuals that fall into the sensation seeking profile and their preference to hard copies of music (standardized  $\beta=-.182$ ,  $p=.001$ ). This means, the more sensation seekers the consumers are, the less likely they would prefer hard copy music. The regression also indicates the statistically significant negative relationship between individuals that fall into the involvement profile and their preference to hard copies of music (standardized  $\beta=-.157$ ,  $p=.006$ ). This indicates that the more involved the consumers are, the less likely they would prefer hard copy music. A portion of the variance is explained in terms of the preference to hard copies of music (Adjusted  $R^2=.119$ ).

For soft copy music preference, the regression analysis identified the statistically significant relationship between individuals in the involvement profile and a preference

for soft copies of music (standardized  $\beta=.295$ ,  $p=.000$ ). Involvement had the largest impact on purchase preference, in addition to that the more involved the consumers are, the more likely they would prefer soft copies of music. The relationship between compliance seekers and their preference to soft copies of music was also identified at a positive statistically significant level (standardized  $\beta=.242$ ,  $p=.000$ ). This indicates that the more consumers are identified as seeking compliance the more likely they are to prefer soft copy music. In addition to that, a statistically significant negative relationship between innovators and soft copies of music was also observed (standardized  $\beta=-.221$ ,  $p=.000$ ). This means, as consumers are more innovative they are less likely to prefer soft copies of music. A statistically significant positive relationship between sensation seeking individuals and their preference to soft copies of music was identified as well (standardized  $\beta=.217$ ,  $p=.000$ ). Hence, the more a consumer is identified as a sensation seeker the more their inclination for soft copy music. In terms of the preference to soft copies of music a portion of the variance is explained (Adjusted  $R^2=.161$ ). Overall, consumers' psychological profile seemed to be a better indicator for consumers' purchase preference to soft copy music (16.1%) than hard copy music (11.9%). Table 4.3 indicates consumers' music purchase behavior related to psychological profile.

**TABLE 4.3****Consumers' Music Purchase Behavior Related to Psychological Profile**

<b>Dependant Variable</b>	<b>Independent Variable</b>	<b>Standardized coefficient</b>	<b><i>t</i>-value</b>	<b><i>p</i>-value</b>	<b>Adjusted R<sup>2</sup></b>
<b>Preference to Hard Copy</b>	Sensation Seeking	-0.182	-3.203	0.001	0.119
	Compliance	-0.082	-1.357	0.176	
	Involvement	-0.157	-2.781	0.006	
	Innovativeness	0.454	7.134	0.000	
<b>Preference to Soft Copy</b>	Sensation Seeking	0.217	3.904	0.000	0.161
	Compliance	0.242	4.093	0.000	
	Involvement	0.295	5.364	0.000	
	Innovativeness	-0.221	-3.566	0.000	

### **Impact of consumers' motivating factors on music purchase preference**

Regression analyses were again used to understand whether the gratifications sought through the use of MP3 players are predictive of a preference for hard or soft copies of music. The motivating factors (gratifications) were analyzed against both dependent variables. Results from the regressions indicated that 4 of the 5 motivating factors for MP3 use had a statistically significant relationship to the preference for hard copies of digital music. The regression also indicated that 4 of the 5 motivating factors for MP3 use had a statistically significant relationship to the preference for soft copies of music.

The regression indicates the statistically significant positive relationship between the loneliness gratification, which had the largest impact on purchase preference, and hard copies of music (standardized  $\beta=.159$ ,  $p=.008$ ). This shows that the more MP3 user aligns with the loneliness gratification the more likely they are to prefer hard copy music. The regression also indicates the statistically significant negative relationship between the boredom gratification and a preference for hard copies of music (standardized  $\beta=-.146$ ,  $p=.011$ ). The individuals engaging in MP3 use due to boredom gratifications are less likely to prefer hard copies of music. The analysis identified the positive statistically significant relationship between the stimulation gratification sought and the preference for hard copies of music (standardized  $\beta=.132$ ,  $p=.035$ ). That is, the more consumers seek stimulation, the more likely consumers prefer hard copy of music. A relatively small portion of the variance is explained in terms of the preference to hard copies of music (Adjusted  $R^2=.047$ ).

The analysis identified a statistically significant positive relationship between the relaxation gratification and a preference for soft copies of music (standardized  $\beta=.283$ ,  $p=.000$ ). The relaxation gratification had the largest impact on purchase preference; the more consumers seek relaxation the more likely they are to prefer soft copies of music. A statistically significant relationship between the entertainment gratification and the preference for soft copies of music was indicated as well (standardized  $\beta=.262$ ,  $p=.000$ ). This means, the more the user looks to MP3 use for entertainment the more likely their preference for soft copies of music.

The relationship between loneliness and a preference for soft copies of music was also observed at the statistically significant negative level (standardized  $\beta=-.203$ ,  $p=.000$ ). This shows that the more consumers use MP3 players in association with gratifications related to loneliness the less likely consumers are to prefer soft copies of music. A positive statistically significant relationship between the boredom gratification and a preference for soft copies of music was also identified (standardized  $\beta=.179$ ,  $p=.000$ ). That means, the more the users seek to satisfy gratifications related to boredom, the more likely users are to prefer soft copies of music. A larger portion of the variance was explained in terms of the preference to soft copies of music, compared to that to hard copies of music (Adjusted  $R^2=.306$ ). Overall, consumers' motivating factors for music purchase were a better indicator for consumers' purchase preference to soft copy music (30.6%) than hard copy music (4.7%). Table 4.4 showcases consumers' music purchase behavior related to motivating factors for music purchases.



**TABLE 4.4****Consumers' Music Purchase Behavior Related to Music Purchase Motivating Factors**

<b>Dependant Variable</b>	<b>Independent Variable</b>	<b>Standardized coefficient</b>	<b>t-value</b>	<b>p-value</b>	<b>Adjusted R<sup>2</sup></b>
<b>Preference to Hard Copy</b>	Relaxation	-0.029	-0.410	0.682	0.047
	Stimulation	0.132	2.121	0.035	
	Entertainment	-0.123	-1.854	0.065	
	Loneliness	0.159	2.680	0.008	
	Boredom	-0.146	-2.565	0.011	
<b>Preference to Soft Copy</b>	Relaxation	0.283	4.612	0.000	0.306
	Stimulation	0.054	1.013	0.312	
	Entertainment	0.262	4.633	0.000	
	Loneliness	-0.203	-4.002	0.000	
	Boredom	0.179	3.680	0.000	

Hypotheses 1 - 4 were not supported. The analysis shows that individuals who score higher on the sensation seeking scale are more likely to prefer to purchase music in the soft copy format. This contradicts H1 and may be due to the fact that sensation seekers can attain their music listening needs more immediately through the ubiquity of the Internet. The results indicate that H2 was not supported, either. H2 posited that compliance seekers would not have a format preference. However the analysis indicates that individuals that score higher on the compliance scale are more likely to prefer to purchase music in the soft copy format. The results contradicted H3 as well. H3 theorized that innovators would be more likely have a preference for soft copies of music. Conversely the findings indicate that innovators have a strong preference for the hard copy format. This may be due to the fact that innovators are oftentimes thought leaders and typically make choices that differ from the mainstream. The findings do not support H4, either. H4 speculated that involved individuals would not have a format preference.

Instead, individuals that score higher on the involvement scale are more likely to prefer to purchase music in the soft copy format. This may be due to the fact that individuals that score high on the involvement scale may also find that the online media is more all encompassing and may allow the involved individual to become more ensconced in the multimedia environment.

The research questions also included exploration into the relationship between motivation for using MP3 players and the users' choices of music format. This research question did not speculate as to which format MP3 player users' would prefer, but instead left the question open to discovery. The analyses revealed that with the exception of loneliness each of the motivating factors for music purchase indicated a strong purchase preference for soft copies of music.

## CHAPTER 5: CONCLUSIONS

This chapter includes (a) summary of the study, (b) discussion of the major findings, (c) implication and contributions of findings, and (d) study limitations and future research suggestions.

### **Summary of Study**

In response to the evolution of digital music consumption, this study aimed to explain the underlying motivations driving consumers' purchase preferences for hard or soft copies of digital music. In recent years music consumers continued to purchase more hard than soft copies of digital music (RIAA, 2009). It is important to understand how and why consumers purchase digital music and how that relates to the format of the media.

This research examined the relationship between digital music format and the underlying catalysts behind the purchase. First, this study used psychological profiles of music consumers to examine the preferences for hard or soft copies of music. The psychological profile portion of this study was adopted from North and Oishi's (2006) research that discussed the profiles in relation to music consumption. North and Oishi (2006) identified the four profiles that music consumers' fall into. Second, this study adopted a uses and gratifications model to further examine the users' preference for hard or soft copies of digital music. This study borrowed a U&G paradigm from Ferguson and colleagues' (2007) study of MP3 player use. Ferguson and colleagues (2007) discuss the five gratifications that MP3 player users seek.

As digital music has evolved so have consumers' presences and habits. Over the years, there have been numerous studies on new media adoption (Lin, 2002; Lin, 2004;

Leung & Wei, 2000; Ruggiero, 2000; Russell, 2002). However, little is known about consumers' purchase preference for hard or soft copies of digital music. Much of the current research approaches digital music use and consumption from either the hard copy (compact disc) or soft copy (digital download) perspective. This study differentiates between the medium and examines the motivation for use and consumption.

Data were collected via online survey. The survey instrument consisted of fifty-five questions, and was distributed via email announcement at the University of Missouri. The email went out to all students, faculty and staff. The survey borrowed scales from previous music use and consumption research (Ferguson et al., 2007; North & Oishi, 2006). A total of 383 surveys were collected online, then downloaded and analyzed using the software Statistical Package for the Social Sciences (SPSS 19).

### **Discussion of Major Findings**

The results of this study revealed several interesting findings. One remarkable finding was that individuals that score high on the innovativeness scale have a strong preference for hard copies of music. Each of the remaining psychological profiles for music consumers; sensations seeking, compliance, and involvement have a positive predictive relationship with soft copies of music. Another important finding is that many of the gratifications sought including; relaxation, entertainment, and boredom all have a significant positive predictive relationship with soft copies of music. While the media use, motivating factor, loneliness has a positive predictive relationship with hard copies of music. In concert with these findings the study discovered that the preference for soft

copies of music, for psychological profiles and for motivating factors, is overall a much better indicator than the preference for hard copies of music.

Innovators are daring, socially mobile, and willing to take inventive risks (Lin, 2004). They are more likely early adopters and eager to investigate music through other media. Flynn and colleagues (1993) refer to these individuals as opinion leaders and thought leaders. According to the findings of this study innovators have a strong positive preference for hard copies of digital music and a relatively strong negative preference for soft copies of digital music. While this finding was contrary to the hypothesis, it still coincides with the overall identity of innovators. The same individuals who pioneered the music downloading craze of the past decade have abandoned that music medium for a less mainstream option. This study reveals that innovators have effectively rejected the medium that others (sensation seeking, compliance, involvement) are embracing.

The more an individual falls into the sensation seeking profile the more likely their preference for soft copy music. The same holds true for individuals in the compliance profile and the involvement profile. These findings were contradictory to the hypotheses, however there are traits in each profile that corroborate and substantiate this soft copy preference. Sensation seekers purchase music because they are interested in re-experiencing a level of psychological arousal (Arnett, 1991). They can more directly attain their music listening needs through soft copies of music due to the ubiquity of the Internet. Compliance seekers are also more likely to have a preference for soft copies of music. Compliance is a public submissiveness, obedience or passiveness, and a willingness to concede to others (Aebischer, Hewstone, & Henderson, 1984). It is not surprising then that as downloading music has become more mainstream compliance

seekers have shifted their preference to reflect that of the broader music purchasing population.

Individuals who fall into the involvement profile also indicate a preference for soft copies of music. The individuals who are involved with music may listen to music for hours every day and may purchase large volumes of music (Dixon, 1980). Again the ubiquity of the Internet and the multimedia nature of the content online may contribute to the appeal of soft copies for these individuals.

Media users motivated by the loneliness gratification indicated a preference for hard copies of digital music. Additionally, there is a negative relationship between MP3 player users' loneliness motivation and a preference for soft copies of music. The findings indicate that users motivated by the loneliness factor are more inclined to seek a more familiar, tangible form of digital music. This finding is interesting and may indicate a desire for companionship during the music purchasing process. Zang's (2011) study identified companionship or loneliness as a motivating factor for media use. However, the physical aspect of music consumption was not addressed in Zang's (2011) study.

Relaxation, entertainment, and boredom, motivating factors for media use, indicate a preference for soft copies of digital music. These motivating factors indicate a positive predictive relationship with soft copies of music. This indicates that many different types of media users look to instantaneous means to fulfill their media needs. While the finding is not surprising, it is important because it contributes to the understanding of media format preferences (hard or soft copies) and demonstrates a shift in the way users fulfill their media needs.

The findings of this study indicate that the preference for soft copies of music, related to psychological profiles and motivating factors, is overall a much better measure than the preference for hard copies of music. The preference for soft copies related to psychological profiles explained a larger portion of the variance (16%) compared to the preference to hard copies (12%). Much more of the variance (30%) was explained through the preference of soft copies related to motivating factors, as opposed to the variance (4%) explained through preference for hard copies of music. The data indicate that the preference for hard copies of music, as a measure, is not as meaningful.

### **Contributions and Implications**

This study contributes to the understanding of consumer behavior of digital media in several ways. There has been very little research conducted on underlying motivations driving consumers' purchase preferences for hard or soft copies of digital music. There are few theoretical frameworks that researchers can rely on to understand why consumers' chose a specific media format for their music purchases. This research contributes to the overall understanding of what motivates a consumer to select a hard or soft copy of digital music.

This research adopted a media use framework to identify motivating factors for digital music format selection. By adopting a U&G framework and building upon it, this study contributes to the theory by identifying a format preference based on gratifications sought. The results indicate that there is a predictive relationship between format preference and motivating factors. There is a considerable amount of U&G research that illustrates how new technologies replace older ones. This study contributes to that by

identifying motivating factors which indicate a preference to soft copies of music (newer technology). However, this study also contributes to the U&G theory by identifying a motivating factor (loneliness) that indicated a preference for the older, more familiar technology (hard copy music).

This study used previously accepted music purchase psychological profiles to understand media format preference. The previous work identified psychological profiles related to types of music preferences (hard rock, pop, classical, etc.). However, the earlier research had not delved into the preferred media format. Much of the previous research considered digital music in only one format, either compact discs or digital downloads. The past research had neglected to investigate music preferences related to distribution channel or preferred digital medium. The current study contributes to the overall music consumer psychological profile theory by identifying a specific profiles' preference based on music media format.

The current study has implications for both the academic world and for managers in the marketplace. First, the implication for academic research is that this study expanded the media consumption or media use literature. This is important because it is necessary to expand this literature to more fully understand media format preference. By expanding the media preference format literature, this study helped create a more meaningful understanding of why users and consumers select certain media.

This research also has implications about other tangible media being supplanted by intangible media, or traditional media being supplanted by new media. This can pertain to both researchers conducting academic investigations into media or market managers making decisions about the media marketplace. This research has implications



for books, newspapers, magazines, home video, or any tangible medium that now competes against an intangible medium.

This research also has implications in regards to distribution channels. Hard copies of music required physical distribution, logistics and sales people. This research indicates that there are certain profiles and motivating factors that align with hard or soft copies of music. The implication is that the distributions channel will be affected according to hard or soft copy format.

This study also has marketing implications. Businesses that sell music can leverage the findings in the study to better understand their customers and the enthusiasm their customers have for purchasing music in soft or hard format. Certain musical genres may align with the profiles or motivating factors, businesses may market their music based on that relationship. Specifically, marketers may find the loneliness gratification to be particularly compelling when trying to sell hard copies of music. Marketers may also consider selling hard copies of music to individuals that are part of the innovator profile, since this was the group with the strongest positive preference for hard copies of music.

### **Limitations and Future Research**

This research has several limitations. Some of the limitations were intrinsic to the study and some were of a more external nature. Some of the external limitations had to do with the lack of comprehensive research conducted on media format preferences. Without having more outside resources related to media format preferences to draw from, this research, by design and through necessity, is somewhat basic.

Another limitation of the study is the female dominated participation rate. The overwhelming majority of survey respondents were female. This diminishes the generalizability of the research. The New York Times (2010) reported that more women are attending college than men. The report states that women, currently make up 57% of the student body (New York Times, 2010). This number is much lower than the female participation rate in this study. While the lopsidedness due to the gender of the participants does limit how the findings can be applied to the rest of the population it should not negate the validity of the research.

Another limitation of the study was again related to the demographic make-up of the survey respondents. The ethnic make-up of the survey participants is different than the overall make-up of college students. This also limits the generalizability of the findings.

This research pulled together two disassociated research paradigms (U&G, psychological profile). While these paradigms were similar to a degree and somewhat overlapping the theories approached user and consumer behavior from different perspectives, and ultimately had little theoretical consistency. Therefore, the study is limited due to the lack of cohesion between these different models. Future researchers may consider using a singular model when approaching media selection research.

Additionally, the study design was limited to a single medium, digital music. Given that the media landscape is so broad, future researchers may want to examine whether differences across media exist in consumers' preferences based on the tangible or intangible nature of the media. Perhaps certain medium are better equipped to transition from hard copy format to soft copy. Digital music may have been the optimum

medium to initiate the transition from tangible to intangible, but as the infrastructure is built out to accommodate the transition of other medium, understanding users' preferences becomes increasingly important.

Future researchers may consider examining the role demographics play in media format preference. It may be revealing to segment media preference according to age group. It would also be interesting to examine how gender affects media format preference. Perhaps insight could be gained into whether nationality or ethnicity impact preferences for hard or soft copies of music.

Subsequent researchers may also consider examining the relationship between preference for a particular medium and the consumers' actual medium format selection. Self reported perceptions of media format preference and actual media use will likely vary. Understanding how the tangibility of the medium relates to perceptions and actual use may be an important addition to the overall U&G theory. Traditionally gratifications obtained through the use of a specific medium can be used to predict actual media usage. However, new media gratifications may not be a good predictor for actual media use (Zang, 2011). Therefore, additional research is necessary.

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## Appendix 1. Survey Questionnaire

### A SURVEY OF DIGITAL MUSIC CONSUMPTION

This survey is being conducted by Jake Crowley in the College of Human Environmental Sciences at the University of Missouri. Your responses will be used to better understand how consumers' purchase digital music. Please respond to all questions; incomplete surveys are not helpful. Thank you for your time.

I would like to emphasize that your participation in this research is totally voluntary. Data including your surveys will be saved anonymously and kept strictly confidential. Each survey should take no longer than 15 minutes to complete.

It is anticipated that there are NO physical, psychological or sociological risks involved in participating in this study. The study results will benefit society as we will have a better understanding of how users consume digital music. There is no direct compensation or incentive for your participation in this study.

By completing this survey, you acknowledge that you are 18 years or older and consent to be a part of this study. Questions or concerns about the survey may be directed to Jake Crowley (573.356.3516; crowley\_jake@yahoo.com). For information about your rights as a research subject, please contact the MU IRB (573.882.9585; irb.missouri.edu).

Please respond to all questions, as incomplete questionnaires create serious problems in data analysis. If you are not sure of an answer to a question, please provide your best estimate. You may contact me at any time if you have any questions or concerns in this matter.

Please think about the last time you purchased digital music and indicate how you would rate your preference regarding the following statements. Please answer questions 1 through 12 using a scale from 1 to 5, 1 being strongly disagree to 5 being strongly agree. Please answer all questions.

1. I liked the music when I heard it on the TV.
2. I liked the music when I heard it on the radio.
3. I liked the music when I heard it on the Internet.
4. I liked the music when I heard it in a film.
5. I liked the music when I heard it in the music store.
6. I liked the music when I heard it at a friend's house.
7. I liked the music when I borrowed it from a friend.
8. The picture/design of the album art work caught my eye.
9. My friend bought and recommended it.
10. My favorite artist recommended it.
11. I read a review of it in a magazine/newspaper/Internet.
12. It reminded me of good old times.



Please answer questions 13 through 18 using a scale from 1 to 5, 1 being strongly disagree to 5 being strongly agree. While answering these questions, please consider your music listening habits.

13. I want to be able to listen to the music whenever I want.
14. I don't like radio DJs' choice of music; I prefer to listen to music of my choice.
15. I want to listen to different types of music in different situations.
16. I want to sing along with the music.
17. I want to listen to it with my friends.
18. I have the artist's other music, which I like listening to.

Please answer questions 19 through 28 using a scale from 1 to 5, 1 being strongly disagree to 5 being strongly agree. While answering these questions, please consider your overall music purchase preferences. In this study, soft copy of music refers to digitized music that is downloaded from the Internet directly to a computer or digital audio device. In this study, hard copy of music refers to music in the form of an audio CD (compact disc).

19. A "soft" copy of the music, or downloaded music, makes sense.
20. I find more value in something tangible.
21. When I download music I also back it up with a hard copy.
22. I like to own something tangible to touch.
23. A soft copy of the music, or downloaded music, seems risky.
24. When I buy music I usually put it on a digital audio device.
25. I like having the cover art to read.
26. I find downloading music satisfying.
27. I enjoy the physical aspect to music buying.
28. Most of my music collection is made up of digital downloads.

Please answer questions 29 through 31 using the actual number of music purchases made per-month. While answering these questions, please consider your overall music purchases. Please indicate the number by typing in the space provided.

29. In an average month I purchase \_\_\_ albums from a store (brick and mortar).
30. In an average month I purchase \_\_\_ albums online.
31. In an average month I purchase \_\_\_ downloaded single songs online.

Please answer questions 32 through 52 using a scale from 1 to 5, 1 being strongly disagree to 5 being strongly agree. While answering these questions, please consider how you use your digital audio device, such as iPod or MP3 player.

I use my digital audio device, such as iPod, Zune, or other MP3 player because...

32. It is a habit, just something I do.
33. It relaxes me.

34. It allows me to unwind.
35. So I can forget about school, work or other things.
36. It is pleasant rest.
37. So I can get away from what I'm doing.
38. It helps me to learn things about myself and others.
39. It is thrilling.
40. So I can talk with others about what I find.
41. It is exciting.
42. It helps me learn what could happen to me.
43. So I can try out media content that my friends tell me about.
44. It entertains me.
45. It is enjoyable.
46. It amuses me.
47. It makes me feel less lonely.
48. So I won't have to feel alone.
49. So I can be like my friends and family who use iPods
50. It gives me something to occupy my time.
51. Just because it is available.
52. When I have nothing better to do.

Questions 53 through 55 are intended to capture demographic information. Please answer these questions as honestly and completely as possible.

53. What is your gender?
  - a. Male
  - b. Female
54. How old are you today? Please indicate your age by typing the number in the space provided.
55. Which category most closely describes your ethnic background?
  - a. Asian/Pacific Islander
  - b. African-American
  - c. Native American
  - d. Hispanic
  - e. Caucasian, non-Hispanic
  - f. Other (please specify)

Thank you for taking time to participate in this study. The information you helped to provide will be used to further understand how users consume digital music.

## Appendix 2. Survey Scales

### SURVEY ITEMS GROUPED BY SCALE

	Scale	Items
<b>Psychological Profiles</b>	<b>Sensation Seeking</b>	I liked the music when I heard it on the TV. I liked the music when I heard it on the radio. I liked the music when I heard it on the Internet. I liked the music when I heard it in a film. It reminded me of good old times. I want to sing along with the music.
	<b>Compliance</b>	I liked the music when I heard it at a friend's house. I liked the music when I borrowed it from a friend. My friend bought and recommended it. I want to listen to it with my friends.
	<b>Innovativeness</b>	I liked the music when I heard it in the music store. The picture/design of the album art work caught my eye. My favorite artist recommended it. I read a review of it in a magazine/newspaper/Internet.
	<b>Involvement</b>	I want to be able to listen to the music whenever I want. I want to listen to different types of music in different situations.
<b>Motivating Factors</b>	<b>Relaxation</b>	It is a habit, just something I do. It relaxes me. It allows me to unwind. So I can forget about school, work or other things. It is pleasant rest. So I can get away from what I'm doing.
	<b>Stimulation</b>	It helps me to learn things about myself and others. It is thrilling. So I can talk with others about what I find. It is exciting. It helps me learn what could happen to me. So I can try out media content that my friends tell me about.
	<b>Entertainment</b>	It entertains me. It is enjoyable. It amuses me.
	<b>Loneliness</b>	It makes me feel less lonely. So I won't have to feel alone. So I can be like my friends and family who use iPods.
	<b>Boredom</b>	It gives me something to occupy my time. Just because it is available. When I have nothing better to do.
<b>Tangibility</b>	<b>Preference Hard Copy</b>	I find more value in something tangible. When I download music I also back it up with a hard copy. I like to own something tangible to touch. A soft copy of the music, or downloaded music, seems risky. I like having the cover art to read. I enjoy the physical aspect to music buying.
	<b>Preference Soft Copy</b>	A "soft" copy of the music, or downloaded music, makes sense. When I buy music I usually put it on a digital audio device. I find downloading music satisfying. Most of my music collection is made up of digital downloads.

### Appendix 3. IRB Approval

**Comments Regarding Project #1190337**

**Comment Number: 298190 (03-11-2011)**

Exempt Approval Letter sent on Mar 11, 2011:

To: jakejcrowley@yahoo.com, habbrookshirej@missouri.edu

BCC: SchmidtRD@missouri.edu

Subject: Campus IRB Exempt Approval Letter: IRB # 1190337

Dear Investigator:

Your human subject research project entitled Digital Music Consumption meets the criteria for EXEMPT APPROVAL and will expire on March 11, 2012. Your approval will be contingent upon your agreement to annually submit the "Annual Exempt Research Certification" form to maintain current IRB approval.

Exempt Category:

45 CFR 46.101b(2)

You must submit the Annual Exempt Research Certification form 30 days prior to the expiration date. Failure to timely submit the certification form by the deadline will result in automatic expiration of IRB approval.

**Study Changes:** If you wish to revise your exempt project, you must complete the Exempt Amendment Form for review.

Please be aware that all human subject research activities must receive prior approval by the IRB prior to initiation, regardless of the review level status. If you have any questions regarding the IRB process, do not hesitate to contact the Campus IRB office at (573) 882-9585.

Campus Institutional Review Board