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Piracy in the Music Industry and the Factors Affecting it

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PIRACY IN THE MUSIC INDUSTRY AND THE FACTORS AFFECTING IT

By

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Master Thesis presented as partial requirement for obtaining the Master's degree in Data-Driven Marketing, with a specialization in Marketing Research & CRM

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ABSTRACT

Music piracy refers to the unauthorized distribution, consumption, and production of copyrighted digital content through digital networks which stands as a persistent challenge in the modern digital landscape. This research studies the factors that affect current music piracy behavior and future intentions such as economic fluctuations, social norms and awareness. Music piracy remains one of the challenges that face musicians, record labels, artists and policymakers. Although many anti-piracy laws have been implemented, it is still difficult to control the spread of illegal and unauthorized content. Primary data is collected through an online questionnaire from 212 participants, in which 171 responses from the total were deemed valid after data cleaning, concluding the significant impact of social norms on both music piracy behavior and intentions, while economic changes was concluded to significantly impact music piracy behavior only. On the other hand, awareness was a non-significant factor in both music piracy behavior and intentions. As music piracy continues to challenge legal and ethical boundaries, stakeholders, policymakers, and educators must collaborate to create effective strategies to combat the widespread of piracy and address the root causes identified in this study. With the understanding of the key factors that affect music piracy, new interventions can be created to slow down and limit piracy, decreasing its impact and safeguarding intellectual property and the rights of artists and record labels.

KEYWORDS

Music Piracy; Awareness; Social Norms; Intentions; Economic fluctuations

Sustainable Development Goals (SGD):



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Acronyms & Abbreviations

Definition

α	Alpha
M	Mean
CD	Compact disk
P	Significance level
Sig	Significance level
SD	Standard deviation
CI	Confidence interval
Beta	Unstandardized Beta
N	Number of responses
GDP	Gross domestic product
Vcr	Video cassette recorders
SE	Coefficient standard error
B	Standardized coefficient beta
DMCA	Digital Millennium Copyright Act
LL	95% confidence interval for B lower band
UL	95% confidence interval for B upper band
SPSS	Statistical Package for the Social Science software
HADOPI	High Authority for the Diffusion of Works and the Protection of Rights on the Internet

1. INTRODUCTION

Throughout the decades, with the accelerating advancement of technology, proliferation of the internet use caused a considerable transformative shift in access to information (Aldiyarova, 2018). As those advancements became an important part of daily life, the internet became increasingly used in our daily routines, causing an increase in online piracy. With the internet serving as a center of digital content consumption and distribution, the risk of piracy escalated. This escalation posed significant challenges to copyright holders and industries that rely on intellectual property protection (Cesareo and Pastore, 2014). To make it crystal clear, according to Hill (2007), online piracy refers to the unauthorized distribution, consumption, and production of copyrighted digital content through digital networks. This includes various digital content such as music, software, and movies. Numerous factors affect online piracy including individual's attitude, behavior toward piracy, cultural values, social norms, legal frameworks, economic factors, and market conditions (Sadiku, Ashaolu, Ajayi-Majebi, & Musa, 2021).

The widespread occurrence of online piracy poses a significant challenge, particularly when focusing on the music industry. This widespread phenomenon caused several implications that posed a risk on the music industry, according to Mekala (2022), globally, the music industry has suffered billions of dollars in losses because of piracy in the previous years and this can be accepted as a problem of the topic to be addressed. Therefore, addressing music piracy is important to provide valuable insights that can help to protect the music industry, find alternative solutions to piracy, help safeguard the intellectual property rights of creators and ensure a healthy economic viability for the industry.

The aim/purpose of this research paper is to conduct a comprehensive analysis to answer the following research questions "What are the primary factors influencing music piracy behavior and intentions?", and "How do social norms, awareness, and economic changes contribute to piracy?". Understanding how these factors influence individuals to engage in music piracy can help leverage legal frameworks, technological developments, market strategies, and social norms to protect intellectual property rights, mitigate the impact of online piracy, and ensure sustained economic viability in the digital age. According to Tomczyk (2021) and Flanigan and Marks (2011), implementing various strategies such as technological solutions, market strategies and educational initiatives will help to protect intellectual property rights, ensure economic viability, support artists and mitigate piracy. Additionally, evaluating the findings of this thesis among different demographics will help inform policymaking and industry practices in addressing this critical issue.

This research will begin with a comprehensive literature review to discuss prior research on the subject. This is followed by the development of hypotheses aimed at understanding the impact of various factors on music piracy. This study will use a quantitative research design to answer the above-mentioned research questions. Additionally, a data collection tool survey will be employed. Following that, to test the

hypotheses, various statistical analysis measurements, including Cronbach's alpha to check reliability, correlation and regression analysis to find relationships between variables, will be utilized.

2. LITERATURE REVIEW

2.1 THE EFFECT OF SOCIAL NORMS ON PIRACY: PEER INFLUENCE

Social norms have been one of the main factors influencing digital piracy throughout the years but according to Xiong and Chang (2021, p.2), *"Although there are many studies that have been investigating consumer awareness across various contexts. There is still a little focus on how consumer's social norms impact their unethical behavior, particularly in the context of the digital domain"*. Xiong and Chang (2021) also explain that social norms show a direct influence on individuals' unethical consumer behavior in the digital era. Moreover, according to Legros and Cislighi (2020), social norms are "commonly understood as the unwritten rules shared by members of the same group or society." Social norms are not isolated but are part of a broader network of concepts that shape human behavior and perceptions, concepts such as attitudes, beliefs, self-efficacy, and group efficacy. The interconnection between those concepts is what allows social norms to play a significant role in shaping individuals' thoughts, emotions, and behaviors.

Social norms have been found to influence individuals in a way where they are more likely to approve and engage in music piracy if they believe their acquaintances, friends or family do so (Sinha & Mandel, 2008). Moreover, a different study about anti-piracy law by Wingrove, Korpas, and Weisz (2011), found that in collectivist societies, the percentage of piracy was significantly higher where adherence to group norms is highly valued. According to Peters, Kok, and Abraham (2008), the Theory of Planned Behavior, which includes social norms as a predictor of intentions, was also referenced as having support for the relationship between social norms and intentions to commit illegal acts.

The Theory of Planned Behavior (TPB) is a social psychological theory that proposes that the individual's behavior is determined by their intentions, which are influenced by three main factors that include subjective norms, attitude and perceived behavioral control which mainly reflects how social pressure or the influence from important others, such as family, friends, or societal norms affect our intentions (Dörr, Wagner, Benlian, & Hess, 2013). According to Halttunen (2016), piracy can change how people acquire and enjoy music. It is so powerful that it provides consumers with a greater influence over their music preferences, almost like a form of cultural resistance. This does not only form a threat to the traditional music business models, but it also gives the listeners more control over how they choose to get their music.

This perspective suggests that some people engage in piracy to challenge the dominance of major record labels and promote a fair resource distribution within the music industry. By doing this, they will be

challenging the existing power structures and advocating for a more equitable distribution of resources (Backache-Beauvallet et al., 2015).

In a 2022 study by Serenko, researchers investigated the reasons people engage in online piracy and found that attitudes towards music, its value, and the availability of legal alternatives influence piracy behavior. The study also identified that implicit and explicit attitudes have a significant impact on digital piracy behavior. Implicit attitudes operate beyond conscious control and can significantly impact behavior, they are long-lasting judgments that a person has already made, stored in the mind and comes into play automatically when coming across things related to what you're judging. On the other hand, explicit attitudes are the attitudes individuals are consciously aware of. These explicit attitudes are influenced by recent experiences, subject to social desirability bias and play an important role in guiding individual behavior.

Serenko (2022) also discussed the ethics position theory, which focuses on idealism and relativism. Those two concepts represent people's ethical ideology which is a personal ethical system that influences morality. What was concluded that they both have different effects on explicit and implicit attitudes toward digital piracy where individuals' moral reasoning and perceptions of ethical behavior can be affected. What was found is that idealism has a negative effect on explicit attitudes (conscious awareness) but a positive impact on implicit attitudes (subconscious judgments), while relativism has a positive effect on both explicit and implicit attitudes (conscious awareness and subconscious judgments). This shows that idealism seems to create a conflict between conscious disapproval and subconscious inclinations, while relativism is associated with more positive attitudes, both consciously and subconsciously.

Another study by Miranda and Kim (2015) found that peer influence and a lenient ethical position also play a role in people engaging in piracy. In their research, peer contagion is seen as a motivating factor for engaging in music piracy, it refers to the idea that having friends or peers who engage in music piracy in your social network can increase one's own inclination to commit the act. They also suggest that a lenient legal-ethical position can influence an individual's intentions regarding music piracy, since it changes their stance regarding ethical concerns, criminal aspects, and legal consequences associated with it. However, they also discovered that mindfulness could act as a protective factor against such intentions. Specifically, the four facets of mindfulness are known as attention, present-focus, awareness, and acceptance. "Attention", characterized by high self-regulation and ethical reasoning helps in diminishing the effect of social norms and encourages alternative perspectives on piracy. "Present focus" directs individuals to prioritize their current musical needs which reduces susceptibility to social influence. "Awareness" fosters critical evaluation of peer influences and aligns one's actions with their personal values. While "acceptance" enables tolerance of emotional discomfort and acceptance of the need to pay for copyrighted music, providing a counterbalance to a lenient legal-ethical position. Those facets were identified as potential protective factors that help individuals resist the social influence of peers engaging

in piracy and focus on their own ethical reasoning which potentially reduces their intentions to commit piracy.

2.1.1 COMBATING MUSIC PIRACY THROUGH CULTURAL SHIFTS

To discourage people from pirating music, effective anti-piracy measures should focus on social norms as they are highly significant in music piracy since they play a crucial role in shaping the consumers intentions and behavior regarding digital piracy, including music piracy (Rybina, 2011). According to Serenko (2022), people's attitudes can change and form a social environment that discourages piracy by demonstrating how it affects and harms artists and record labels through developing educational programs that focus on this issue, by creating educational programs that highlights the negative effect of piracy on content creators and by raising awareness about the consequences of pirating, individuals can be influenced to reconsider their attitudes and behavior. Furthermore, lower piracy rates can be achieved by increasing the efforts to construct a culture of respect towards intellectual property rights and the value of music artists creative work and by fostering a culture that promotes a strong and deliberate assessment of actions (Serenko, 2022).

Moreover, research findings developed in Vietnam provided insights into the factors that influence digital piracy behavior. The research sheds light on the importance of intention, perceived behavioral control, attitude, regulation recognition, moral obligation, perceived risk and the impact of social norms on attitudes. These findings can help develop effective anti-piracy measures designed to instill a culture of respect for intellectual property rights and the value of creative labor and targeted strategies, such as reduced digital product prices and addressing payment difficulties, to mitigate digital piracy behavior (Pham, Dang, & Nguyen, 2020). Another interesting study by Gervais (2004), suggests that although file-sharing may have a significant effect on music piracy, it does not necessarily mean those effects will increase piracy behavior. On the contrary, Gravis emphasizes that this can be used to our advantage in combating piracy by licensing file-sharing to change its impact from positive to negative regarding increased piracy behavior.

2.2 ECONOMIC CHANGES IN REGARD TO MUSIC PIRACY

Examining the connection between economic changes and music piracy behavior is crucial for several reasons. According to Ki, Chang, and Khang (2006), studying music piracy across several countries has revealed some of the main influential factors such as income, education level and intellectual property protection. They also discussed that the development of new technology such as the Internet, has

accelerated music piracy rates. In the field study conducted by Kukla-Gryz, Tyrowicz, and Krawczyk (2021), they discovered evidence that suggests there is a relationship between digital piracy and an individuals' perception of price fairness. The researchers concluded that individuals who perceived the prices of digital goods as unfair were more likely to engage in piracy noting that the relationship between the perception of unfair pricing and piracy was consistent across different measures of price fairness.

Another study by Serenko (2021), shows that "Price is a major factor driving the consumption of illicit digital content, especially for people residing in lower-income countries". This suggests that economic factors such as income disparities and regional differences in access to legal music distribution channels may encourage music piracy to increase. Due to the technological and economical changes in the music industry that include the transition to digital distribution, the costs of piracy have significantly decreased, making unauthorized consumption increasingly appealing to consumers. According to a student survey by Flanigan & Marks (2011), a staggering 91.8% of respondents expressed the belief that CDs (Compact disk) are too expensive. Additionally, the survey revealed that the 95% confidence interval for the mean price students were willing to pay to download a CD mix of 12 songs ranged from \$3.52 to \$4.73. These results highlight consumer price sensitivity and indicate a demand for more affordable options. Moreover, studies have shown that online piracy is a global phenomenon that affects both developed and developing countries and it shows that piracy is not limited to a particular cultural group or demographic area. Piracy exists in highly developed countries with a high GDP (Gross domestic product) and in countries with a lower level of income (Tomczyk, 2021; Wang, Yang & Bhattacharjee, 2011). Furthermore, with the advancements in online distribution, prices could be set to reflect cost savings. This shows the influence of economic factors in this matter. Moreover, online services that are currently offering downloads at prices ranging from \$.88 to \$.99 per song have also not seen significant success yet. By effectively leveraging economical changes in the industry and establishing a price that accurately reflects the cost savings of online distribution, the music industry could potentially capture lost rents from illegal file sharing and mitigate the appeal of piracy among price-conscious consumers. These factors underscore the notion that the decreasing costs of piracy have made unauthorized consumption more enticing for a segment of consumers (Flanigan & Marks, 2011).

Another study by Yar (2005), highlights the film industry's concerns regarding unauthorized copying and distribution, exacerbated by technological advancements such as VCRs (Video cassette recorders) and digital media. It also sheds light on the music industry's battle against file-sharing services like Napster and the emergence of electronic music swapping, indicating the direct influence of technological changes on music piracy. Moreover, the industry reports economic implications of piracy such as substantial financial losses that emphasize a connection between piracy, organized crime, and even terrorist organizations. Additionally, studies have also shown that digital distribution methods like streaming services, have been adopted as legal alternatives to piracy. Firms in the film and music industry were able to benefit from making legal versions of their products available on streaming services like Spotify (Veitch & Constantiou, 2012). According to Pomales (2016), "With the appearance of Napster, piracy around the world began skyrocketing as people began to see peer-to-peer sharing as a way of owning free music".

This resulted in the decline of sales in traditional records as people preferred using the internet to pirate rather than legally purchasing at physical or online stores.

Moreover, another study by Oberholzer-Gee and Strumpf (2016) investigated the negative implications of file sharing in the industry and derived several key insights. First, the study has shown that file sharing has led to varying degrees of sales displacement, with estimates ranging from negligible to as high as 30%. However, a typical estimate suggests a 20% displacement rate, indicating that factors beyond file sharing significantly influence sales trends. Second, research on file sharing has utilized two primary approaches: product-level and person-focused designs, which have yielded divergent results. The product-level approach investigated how illegal downloads are linked to sales and found limited impact on sales when observing actual file sharing. On the contrary, the person-focused approach which compares the consumption of paid and unpaid music found greater sales displacement to file sharing. Third, a long-term decline in recorded music sales has occurred in the past, which was linked to shifts in dominant music formats. Consumers typically tend to transition slowly to new formats, and recent shifts to digital downloads and streaming have reduced the incentive for consumers to build new music libraries, potentially contributing to slower sales growth. However, file sharing is evident in the continued decline of record sales.

2.2.1 ASSESSING THE IMPACT OF ANTI-PIRACY LAWS ON THE MUSIC INDUSTRY

Previous studies and research about piracy in the music industry shed light on several topics such as how effective the anti-piracy efforts are and focused on the economic impact that it creates. One of those studies investigated the effects of the graduated anti-piracy response laws (HADOPI: High Authority for the Diffusion of Works and the Protection of Rights on the Internet) on the music sales in France and concluded that enforcing such laws increased iTunes revenues for major labels by \$13 million per year, but those laws still faced criticism and skepticism regarding its effectiveness and the balance between enforcement and individual rights (Danaher, Dhanasobhon, Smith, & Telang, 2010). Another study that looked into the music piracy laws on music sales, found out that the effect of these laws reduced piracy by 16% during the first 6 months and increased the sales by 36% during the same period, but diminished quickly after that period of time and continued to have an impact on digital sales which resulted in unintentional consequences to the industry, such as reduced investment when creating or promoting new music (Adermon and Liang, 2014).

2.2.2 BUSINESS MODEL RESPONSES TO DIGITAL PIRACY FEATURING SPOTIFY AND NETFLIX

In the context of business models, another study by Aversa, Hervas-Drane, and Evenou (2019), on business model responses to digital piracy, discusses how the business model changes implemented by Spotify and Netflix were largely driven by technological advancements and focused on economic factors. Both platforms leveraged the capabilities of the internet and digital distribution to offer streaming services as an alternative to traditional ownership of physical copies of music and movies. The emergence of high-speed internet, advancements in streaming technology, and the widespread availability of devices capable of streaming content (such as smartphones, smart TVs, and computers) played a crucial role in enabling Spotify and Netflix to deliver their services to a broad audience. Both platforms offer real-time streaming of content, subscription plans, and attractive pricing. The subscription model simplifies pricing and payment processing for the firms but limits the extent of price discrimination.

The conclusion of their study highlights the significance of leveraging business models in the digital space to address challenges of digital piracy and introduce a new consumption paradigm. By enhancing accessibility, convenience, navigation, and social interactions in the consumption experience, organizations can effectively respond to piracy. Ongoing research and innovation in business models driven by economic and technological changes offer opportunities for business model innovation, performance optimization, and financial sustainability in industries prioritizing content protection and monetization.

Furthermore, studying the economic factors may also assist legislators in understanding piracy behavior. When looking into the impact of uncertainty avoidance, which refers to the "degree to which people in a country prefer structured over unstructured situations" (Steenkamp, Ter Hofstede, & Wedel, 1999), Wlömert & Papies (2019) claim that "Engaging in piracy is associated with strong uncertainty because it entails considerable legal risks" and that the effect of broadband on the music market will be less negative in countries with strong uncertainty avoidance. This implies that technological factors, such as access to broadband internet, can influence consumer behavior and the impact of piracy on the music market. Moreover, they discuss that new business model introductions can have a positive effect on revenue in countries with high uncertainty avoidance, suggesting that economic conditions and consumer attitudes towards new models play a role in shaping the market (Wlömert & Papies, 2019).

2.2.3 IMPLICATIONS FOR MUSIC PIRACY AND STREAMING SERVICES

The interaction between economic and technological changes in the music industry has had multiple effects on piracy behavior. According to Elk (as cited in Pomales, 2016), the founding purpose of Spotify was to establish streaming as a viable alternative to piracy in the digital age. It can be argued that if piracy has declined, streaming services have successfully achieved an important objective for the music industry. Conversely, Pomales (2016) stated that if piracy rates have increased, streaming services might be

contributing to the overall escalation of digital piracy which was portrayed when Kanye West's album *Life of Pablo*, was exclusively available on Tidal, a famous streaming platform. During that time, it is estimated that a significant number of people illegally downloaded the album from file-sharing websites. This situation resulted in severe losses for the artist, streaming platform and the professionals associated with the album's production. (Pomales, 2016). Pomales (2016) also mentions that the Digital Millennium Copyright Act (DMCA), which was created in 1998 to help protect copyright holders, has done very little to help combat copyright following the creation of the internet and online file sharing sites. The flaws in DMCA have resulted in almost 57 million people still obtaining music from pirated sources, which includes stream ripping along with downloading from storage locks, mobile apps, and drive systems. Having explored the implications of music piracy and streaming services, the attention will shift to consumer behavior, considering factors such as income levels, wealth disparity, and global perspectives.

2.2.4 PRICE SENSITIVITY AND ETHICAL PERSPECTIVES

Further research on the financial aspects of music piracy was conducted by Tomczyk (2021) who studied which factors determine the way that digital piracy is interpreted among adolescents, the respondents in the study showed that economic factors play a significant role in the perception of digital piracy. Insufficient financial resources are often one of the reasons for engaging in piracy among adolescent internet users, so some of them justify their piracy behavior by stating that they cannot afford to purchase entertainment goods legally. However, the study found out that the correlation between better financial situation and reduced piracy is not accurate. Ethical factors, along with other intermediate variables, influence hacking risk behavior. This implies that even with better financial resources, the ethical considerations surrounding piracy still play a role in determining one's intention to engage in such activities.

Examining the relationship between economic factors and piracy is important, especially when looking into income and wealth disparity, Wlömert & Papies (2019) in their study suggests that in countries with higher income levels, individuals have more discretionary income available to them, which means they can afford to purchase entertainment products legally. As a result, they are less likely to resort to piracy. On the other hand, in countries with lower income levels, individuals may have limited discretionary income, making it more difficult for them to afford legally available entertainment products. This increases the attractiveness of piracy to access desired content for free. Moreover, many of the studies conducted about the economic changes in the industry did not quite focus on the implications of such changes on the music piracy behavior as most of those studies were conducted in developed countries (Fink, Maskus, & Qian, 2015). To gain a better understanding of the current issue facing the music industry, exploring the relationship between piracy behavior, economic changes is needed (Bhattacharjee, Gopal, Lertwachara, & Marsden, 2003).

Although many studies have been conducted and researched about how economic changes can impact the music industry and change piracy behavior within individuals, there is still a need to look further into the effect of such changes. Both recent and previous studies are mostly discussed in developed countries, thus there is a need for more research to explore the implications of these changes on music piracy behavior in a broader context and understand how the changes affect music piracy behavior in a more comprehensive and global perspective considering cultural and demographic factors and assessing the impact of these changes on a wider scale.

2.3 EXPLORING THE IMPACT OF AWARENESS, EDUCATION AND MORALITY ON ONLINE PIRACY BEHAVIOR

One of the theories established that investigated the relationship between piracy education and morality was the deterrence theory. According to Gunter (2009), the theory suggests that individuals engage in piracy because they recognize that they can gain copyrighted work without financial cost. However, if the potential loss due to the threat of punishment outweighs the potential gain, then individuals are less likely to engage in piracy. So, if individuals perceive that the repercussions for piracy outweigh the benefits then they are less likely to engage in it. According to Park (2019), who focused in his study on deterrence theory where piracy awareness and education in influencing behavior was discussed, found that punishment severity, moral beliefs, self-control and piracy education are important to understand and prevent online piracy. So, to help prevent misconduct, awareness and education efforts in schools and institutions to raise awareness, promote moral beliefs, and provide knowledge about the consequences of piracy must be focused on. The study also found that ethical education and awareness campaigns have been found effective in reducing illegal behaviors, however, an obvious lack of sufficient piracy education in schools and institutions was observed. So, increasing awareness, promoting moral values, and enhancing ethical education can contribute to reducing piracy behavior.

On another hand, a study by Choi and Yun (2021) focused on the potential effectiveness of educational programs in fostering moral beliefs and empathy. Their study focuses on morality and self-control where they suggest that individuals with high moral standards are less likely to engage in piracy, while those with low self-control are more likely to participate in it. In the study they also discussed the “Child Development Project” which is an intervention program designed to develop prosocial behavior in schools which suggests that encouraging students to participate in rule setting and engage in prosocial activities can instill moral beliefs and empathy toward other people and can help them understand what is right and wrong when deciding whether to use copyrighted digital software illegally.

To effectively combat piracy and reduce its behavior, educational efforts must be focused on and intensified in schools and institutions. Focusing on raising awareness, promoting moral values, and providing knowledge about the consequences of piracy will help reduce the act and limit its implications.

2.3.1 COMBATING DIGITAL PIRACY BY STRENGTHENING AWARENESS AND EDUCATION

Effectively addressing the ongoing issue of digital piracy requires a thorough strategy that integrates factors such as legal, ethical, and economic perspectives to protect intellectual property rights. Tomczyk (2021), in his study, discusses the importance of strengthening copyright awareness among adolescents, parents and teachers in Poland. The study suggests that by understanding the different dimensions of piracy which include its impact on the creative sector and the interests of creators, effective solutions can be designed to minimize piracy and raise awareness about intellectual property rights. Moreover, the analysis of the gathered data in the study shows that the respondents most frequently consider digital piracy from ethical, legal, and economic perspectives, so developing attitudes based on ethics and awareness of the legal consequences of piracy can contribute to reducing piracy behavior. Also, various educational initiatives have been introduced and piracy-related topics have been incorporated into school curricula for computer classes, IT classes, intellectual property law, and information technology courses at different academic levels. But despite these efforts, piracy statistics in European countries have remained relatively unchanged over the years.

According to Martínez-Sánchez and Romeu (2018), the quality of specific areas of education such as math, computer science and secondary schooling emphasize a positive relationship between piracy and education. This shows that educational factors widen the scope of resources to facilitate the ways to use unauthorized applications for piracy. However, the study also suggests that there is a negative correlation between higher education and piracy due to having a high perception of intellectual protection. Although awareness, education and piracy studies yield varied results, it is important to study this issue further by looking into awareness and educational initiatives that aim to focus on moral beliefs, awareness about piracy consequences, and the installation of ethical values.

2.4 CONCEPTUAL MODEL:

There are many factors which have been researched to affect music piracy, however, the determined results of those research are not well formed to provide a comprehensive understanding of the phenomenon. Social norms, economic factors and awareness efforts are hypothesized to have a direct influence on individuals' engagement in music piracy and their intentions to commit the act. It is imperative to consider the direct impact of key factors since future research should be done to test the relationship between those factors and music piracy. Hence, the model in **Figure 1** is established where

the direct relationships between social norms, awareness and economic factors and their influence on music piracy are observed. By concentrating on these direct relationships, this model simplifies the framework for identifying the core drivers of music piracy, which can offer valuable insights for the development of targeted strategies to address and try to stop this growing challenge.

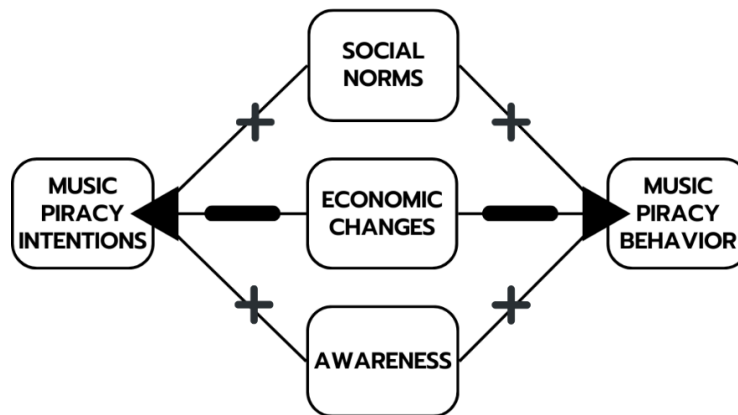


Figure 1. The Socio-Economic-Awareness Theoretical framework of Music Piracy Behavior & Intentions

Table 1. New variables with their corresponding definition and reference

Variable	Definition	Reference
Music Piracy Behavior	Music piracy behavior encompasses both unauthorized obtaining (acquiring music without proper authorization, such as downloading from the internet or copying from peers) and unauthorized sharing (distributing music without authorization, such as through peer-to-peer networks or file-sharing websites), with distinct motives driven by personal economic benefits/losses and social benefits/losses, respectively.	Wang, Jingguo, Zhiyong Yang, and Sudip Bhattacharjee (2011), "Same Coin, Different Sides: Differential Impact of Social Learning on Two Facets of Music Piracy," <i>Journal of Management Information Systems</i> , 28(3), 343–384. https://doi.org/10.2753/MIS0742-1222280310
Music Piracy Intentions	The intention to download pirated files refers to the likelihood that consumers will obtain	Culiberg, B., Koklic, M. K., Vida, I., & Bajde, D. (2016). Examining the effects of utilities and involvement on intentions to

	copyrighted digital files from an unauthorized online channel in the future.	engage in digital piracy. Computers in Human Behavior, 61, 146-154.
Social Norms	Social norms are “commonly understood as the unwritten rules shared by members of the same group or society.” Social norms are not isolated but are part of a broader network of concepts that shape human behavior and perceptions, concepts such as attitudes, beliefs, self-efficacy, and group efficacy.	Legros, S., & Cislighi, B. (2020). Mapping the social-norms literature: An overview of reviews. Perspectives on Psychological Science, 15(1), 62-80.
Economic Changes	Economic changes and conditions in piracy entail the conventional economic principle that consumer choice regarding purchasing or pirating goods is heavily influenced by price.	Jackman, M., & Lorde, T. (2014). Why buy when we can pirate? The role of intentions and willingness to pay in predicting piracy behavior. International Journal of Social Economics, 41(9), 801-819.
Awareness	To teach people to become aware of significant sensations within themselves and their environment so that they respond fully and reasonably to situations.	Britannica, T. Editors of Encyclopaedia (2024, January 12). <i>Gestalt therapy</i> . Encyclopedia Britannica. https://www.britannica.com/science/Gestalt-therapy

3. METHODOLOGY

The procedure for collecting the data required to address all the hypotheses begins with a description of the data collection methods and research strategy, followed by a discussion of the results. Furthermore, the data collected through the survey were evaluated using the Statistical Package for the Social Sciences (SPSS software v 29 testing model). Data cleaning was the first step in this research approach as it enhances data accuracy, reliability, and overall data quality which leads to a more meaningful and trustworthy research outcome, additionally, the missing values in the data set were replaced with “0” to preserve data structure. Moreover, the data preparation process was described. After the data was processed, the sample was demographically characterized mainly through frequency statistics. Secondly, descriptive statistics were interpreted to show the sample-related data. Thirdly, the reliability of the constructs was assessed through Cronbach’s alpha and their quality was ranked based on the guidelines proposed by George and Mallery (2003), however, the variables Awareness and Economic factors were not admitted to any test since they only consisted of one question. Fourthly, correlation analysis was undertaken. Lastly, to test hypotheses, regression analysis was then conducted to measure the difference between the means of the variables and to determine if we accept or reject the hypotheses.

3.1 HYPOTHESIS OVERVIEW

H1.a. Positive social norms towards music piracy are likely to be associated with an increase in current music piracy behaviors among individuals within a given social group or community.

H1.b. Positive social norms towards music piracy are likely to be associated with an increase in music piracy intentions.

H2.a. Better economic changes will be associated with a decrease in current music piracy behavior.

H2.b. Better economic changes will be associated with a decrease in current music piracy intentions.

H3.a. Higher awareness regarding piracy risk will be associated with an increase in music piracy current behavior.

H3.b. Higher awareness regarding piracy risk will be associated with an increase in music piracy intentions.

3.2 STUDY DESIGN

A quantitative online survey was created on Qualtrics XM, conducted in order to acquire data to better draw conclusions on how Social norms, Economic changes and Awareness influence Music piracy behavior and intentions. To analyze our primary data that were taken from the survey, Statistical Package for the

Social Science software (SPSS v.29) was utilized using the regression model. Our aim is to understand if there are relations that can be drawn with respect to Music Piracy.

The theoretical framework to study the factors that directly impact music piracy comprises five key variables: social norms, economic changes, awareness, music piracy intentions and music Piracy behavior. To assess these variables, the respondents' investment in music in terms of both time and money, identifying the devices they use to consume music, pinpointing the source of the music they listen to and ascertaining their usage of streaming platforms (Ex: Spotify) had to be explored (Nunes, 2018).

Afterwards, respondents were asked if they have consumed music from unauthorized sources to understand if they have ever engaged in music piracy (Nunes, 2018). To make sure the participants have or have not engaged in music piracy, they were asked if they have ever downloaded music from unauthorized sources such as the internet (ex: Pirate Bay), streaming services (ex: YouTube) or copied music from friends or relatives. An ordinal scale ranging between "Never" and "Everyday" was used for this assessment (Wang, Yang, and Bhattacharjee, 2011).

Moreover, a Likert scale (Likert, R. 1932), ranging from 1 to 5, with 1 indicating "Strongly agree" and 5 indicating "Strongly disagree" were displayed to assess and understand peer influence. Respondents were asked if people around them think that music piracy is bad, unharmed or attractive (Wang, Yang, and Bhattacharjee, 2011). The same scale was also used to assess the respondents perception of music piracy, they were asked if they view piracy as acceptable, bad or foolish (Wang, Yang, and Bhattacharjee, 2011). Additionally, they were also asked about their intention to copy, try to copy or make an effort to download unauthorized music in the near future (Spark, 2010). To understand their intentions further, they were also asked whether they would commit piracy if they had the opportunity or if they would never try to do so (Spark, 2010). Besides, they were also asked about their perceived risk or likelihood of getting caught when obtaining or sharing music without authorization (Wang, Yang, and Bhattacharjee, 2011) to understand their level of understanding and awareness of copyright laws and consequences regarding engaging in piracy behavior.

Additionally, a Likert scale (Likert, R. 1932), ranging from 1 to 5, with 1 indicating "None of them" and 5 indicating "All of them" was used to understand if their peers engage in music piracy, respondents were asked if their friends download, copy or uploaded unauthorized music (Wang, Yang, and Bhattacharjee, 2011). On top of that, an additional question was asked to understand why they would commit piracy (ex: disagreeing with copyright laws; the availability of music on legal streaming platforms) (Wang, Yang, and Bhattacharjee, 2011). Lastly, respondents were asked about their age, gender, occupation and monthly income to better understand the different demographics and determine their general economic level

Nunes (2018). Moreover, **Table 2 (Appendix C)** shows each question that was included in the survey with its corresponding reference.

3.3 MEASUREMENT INSTRUMENT

In this research, the theoretical framework to study the factors that directly impact music piracy comprised five key variables: social norms, economic changes, awareness, music piracy intentions and music piracy behavior. To assess those variables, a set of statements using the Likert scale (Likert, R. 1932), ranging from 1 to 5, with 5 indicating "highly agree" and 1 indicating "highly disagree" were displayed. The research investigated the respondents' levels of agreement with questions related to the influence of social norms, economic changes and awareness on music piracy. Moreover, multiple-choice and yes/no questions were also included to gain a better understanding of the respondents' level of engagement in music piracy, as well as their comprehension of the concepts and behaviors associated with it.

3.4 MEASUREMENT MODEL

To analyze the data, the questions of the survey were combined to create 5 different variables: Music piracy behavior, Music piracy intentions, Social norms, Economic changes, and Awareness as shown in **Table 3** below.

Table 3. New variables with their corresponding items/questions

Scale	Items per scale	Cronbach's Alpha	Items	References
Music Piracy Behavior	Q8.1	0.834	3	Wang, Yang, and Bhattacharjee (2011)
	Q8.2			
	Q8.3			
Music Piracy Intentions	Q.16	0.879	5	Spark, L. (2010)
	Q.17			
	Q.18			
	Q.19			
	Q.20			
Social Norms	Q10.1	0.762	3	Wang, Yang, and Bhattacharjee (2011)
	Q10.2			
	Q10.3			

Scale	Items per scale	--	Items	References
Awareness	Q15	--	1	Wang, Yang, and Bhattacharjee (2011)
Economic Changes	Q24	--	1	Nunes (2018)

The data reliability was carried out on the newly created variables as a measurement of internal consistency. The Music piracy behavior subscale consisted of 3 items ($\alpha = 0.834$) (**Table 4- Appendix B**), the Music piracy intentions subscale consisted of 5 items ($\alpha = 0.879$) (**Table 5- Appendix B**), the Social norms subscale consisted of 3 items ($\alpha = 0.762$) (**Table 6- Appendix B**), Economic changes and Awareness subscales consisted of only 1 item. The data reliability test revealed that our study variables passed the reliability test, while Economic changes and Awareness were not tested as they had only 1 item.

Mean (M) and standard deviation (SD) analysis is made to provide us with better insights on the participants' responses in the questionnaire. **Table 7 (Table 8- Appendix B)** shows the correlation between the variables and provides a signal whether the variables are related to each other, while **Table 9 (Table 10-Appendix B)**, shows the mean and standard deviation for all variables.

Table 7. Correlations between all variables

Correlations						
		Piracy Behavior	Piracy Intentions	Awareness	Social Norms	Economic Changes
Piracy Behavior	Pearson Correlation	--				
	N	171				
Piracy Intentions	Pearson Correlation	.283**	--			
	Sig. (2-tailed)	<.001				
	N	171	171			
Awareness	Pearson Correlation	.474**	.399**	--		
	Sig. (2-tailed)	<.001	<.001			
	N	171	171	171		

Social Norms	Pearson Correlation	-.262**	-.143	-.132	--	
	Sig. (2-tailed)	<.001	.062	.086		
	N	171	171	171	171	
Economic Changes	Pearson Correlation	-.122	-.010	-.129	.144	--
	Sig. (2-tailed)	.113	.897	.092	.060	
	N	171	171	171	171	171

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 9. Means (M) and Standard Deviation (SD) for all variables

	M	SD
Music Piracy Behavior	1.5244	.85093
Music Piracy Intentions	2.3614	.97867
Awareness	2.2924	1.13080
Social Norms	2.1072	.95291
Economic Changes	2.7485	1.86009

3.5 DATA COLLECTION AND PARTICIPANTS

A quantitative approach was taken to collect data, and a survey of 24 questions was conducted via social media platforms such as Instagram, WhatsApp, Facebook, and LinkedIn. The survey was the primary source of data collection used to gather the information that can help understand the stance of the participants on music piracy. 212 people completed the survey and recorded their responses. The survey was done anonymously to better protect the individual's identity. Moreover, the questionnaire consisted of several questions to understand if people use free or premium music streaming services followed by questions to understand if they or their peers have participated in music piracy before and their willingness to do so. Additionally, after data cleaning, a total of 171 responses from the recorded 212 were deemed valid (N=171), implying a response rate of 80% which suggests that the survey was efficiently designed as the sample size was considered enough to conduct the data analysis.

3.6 DESCRIPTIVE ANALYSIS

Descriptive statistics have been drawn up to show the sample-related data. Overall, there were 212 responses, 171 responses representing valid data, and 41 representing missing or incomplete answers. In total 53% of answers were males, 44% females, 2% non-binary or third gender and 1% preferred not to say. **(Table 11 - Appendix B)**

Most respondents, which count to 63%, were employed, 11% self-employed, 11% unemployed, 10% Students, 2% others and 1% retired **(Table 12 - Appendix B)**. Moreover, most of the respondents which represented 35% have an income between 1001 to 2000\$ whereas only 23% of them were earning less than 1000, 15% preferred not to say, 11% earn more than 4000, 8% of them were earning 2001 to 3000\$, and 4% of them were earning 3001 to 4000\$ **(Table 13 - Appendix B)**. Additionally, the average age of the respondents was 26 to 30 years old, which counted to 35% **(Table 14 - Appendix B)**. To understand how much time people spend listening to music daily, respondents were given a set of multiple-choice answers to choose from. 35 % of respondents spend "1 to 2" hours daily, 29% spend "less than 1 hour". 17% of them spend "2 to 3 hours", 9% spend "3 to 4" hours and 10% spend "more than 4 hours" **(Table 15 - Appendix B)**. Afterward, Respondents were asked about how much money they spend monthly on music services. 71% of the respondents spend "less than 5\$", whereas 18% spend "5 to 10\$", 7% spend "11 to 15\$", 3% spend between "16 to 20\$" and 1% spend "more than 20\$" monthly **(Table 16 - Appendix B)**. After measuring the time and money they spend on music monthly, a question about which device they use when they listen to music was asked. 60% of respondents listen to music through their mobiles, 30% listen to music through computers and 10% others listen to music through iPad, car radio, etc. **(Table 17 - Appendix B)**. Additionally, respondents were asked to specify the source of their music, and either by paid or unpaid streaming versions. 29% of the respondents use video streaming, 17% use free music streaming, 20% only pay for their monthly usage, 22% use free internet downloads, 8% buy their music from online stores and 3% buy music from physical stores. Moreover, 33% of the respondents have a free version account, 38% of them have a paid version account and 29% don't have an account in a streaming platform. Additionally, when asked about what platform they frequently use, 35% of the respondents use Spotify as a platform **(Table 18 - Appendix B)**. Moreover, respondents were asked if they ever downloaded or shared music from unauthorized sources. 48% of them have engaged in piracy while 51% of them have not **(Table 19 - Appendix B)**. Subsequently, participants were asked about the frequency of unauthorized music or file downloads from the internet (piracy). 66% of the respondents never downloaded music illegally, while 2% download music illegally every day **(Table 20 - Appendix B)**. To dive deeper into music piracy consumption, respondents were asked how often they download music illegally from online streaming services, such as YouTube music. 60% of the respondents never downloaded music illegally from online streaming services, while 4% download music every day **(Table 20 - Appendix B)**. Moreover, the respondents were asked about how often they copy unauthorized music from friends or relatives. 70% of the respondents never copied unauthorized music from friends or relatives, while 2% of the respondents copied unauthorized music from friends or relatives every day **(Table 20 - Appendix B)**.

Furthermore, to understand the attitudes of respondents towards music piracy, they were asked to give their opinion on the topic considering the perspectives of individuals significant to them. These opinions were measured using a Likert scale (Likert, R. 1932), from 1 to 5, where 1 indicated strong disagreement and 5 indicated strong agreement. Accordingly, 3 sub-questions that were developed to measure 3 important aspects: whether music piracy of individuals significant to them is considered bad, unharmful or attractive. **(Table 21) (Table 22 - Appendix B)**

Table 21. I think Music piracy is Bad, Unharmful or Attractive

	Strongly Disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree		Missing Answers	
	n	%	n	%	n	%	n	%	n	%	n	%
Bad	28	16	37	22	46	27	29	17	27	16	4	3
Unharmful	27	16	40	23	42	25	42	25	14	8	6	4
Attractive	50	29	26	15	62	36	20	12	6	4	7	4

To reassure that respondents were transparent about music piracy intention, they were asked to specify how many of their friends that they have known for the longest have engaged in downloading, copying or sharing music. The question was measured using a Likert scale (Likert, R. 1932), from 1 to 5, where 1 indicated "None of them" and 5 indicated "All of them". Accordingly, 3 sub-questions were developed to measure 3 important aspects: whether their friends whom they have known for the longest have engaged in downloading, copying or sharing music **(Table 23). (Table 24 - Appendix B)**

Table 23. Downloading, Copying or Sharing

	None of them		A few of them		Some of them		Most of them		All of them		Missing Answers	
	n	%	n	%	n	%	n	%	n	%	n	%
Download	33	19	61	36	37	22	27	16	11	6	2	1
Copy	67	39	41	24	40	23	11	6	8	5	4	2
Share	86	50	38	22	28	16	7	4	5	3	7	4

Additionally, respondents were asked to express their opinion on whether the act of downloading or sharing unauthorized music is acceptable, bad or foolish. This question was also measured using a Likert scale (Likert, R. 1932), from 1 to 5, where 1 indicated strong disagreement and 5 indicated strong agreement. Accordingly, 3 sub-questions were developed to measure 3 important aspects: whether music piracy is considered “acceptable”, “bad” or “foolish” (**Table 25**). (**Table 26,27, and 28 - Appendix B**)

Table 25. Acceptable, Bad or Foolish

	Strongly Disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree		Missing Answers	
	n	%	n	%	n	%	n	%	n	%	n	%
Acceptable	31	18	43	25	47	28	36	21	11	6	3	2
Bad	28	16	37	22	46	27	29	17	27	16	4	2
Foolish	17	10	40	23	60	35	36	21	14	8	4	2

Additionally, respondents were asked to express their opinions on the factors that would make them more likely to download or share unauthorized music. This question included a series of statements related to their likelihood of engaging in music piracy were presented. These statements covered various aspects such as knowledge about legal alternatives, concerns about consequences, availability of legal streaming platforms, personal beliefs about copyright laws and free access to music, perceptions of harm to artists and the music industry, recommendations from friends or peers and affordability of legally purchasing music.

16% of the respondents stated that they would be more likely to download or share unauthorized music, if they had limited knowledge about the legal alternatives and consequences of piracy, 15% would be more likely to do so if they knew they wouldn't get caught or face any consequences, 17% would pirate music if it was not available on any legal streaming platforms, 13% who disagreed with the copyright laws and believed in free access to music, 14% who didn't think it would harm the artists or the music industry, 13% that received a recommendation from a friend or peer to download it illegally and 12% who couldn't afford to purchase the music legally. (**Table 29 - Appendix B**)

Moreover, the respondent's perception of the high risk of getting caught when obtaining or sharing music without authorization was measured. 32% of the respondents "Neither agreed or disagreed" that they would get caught, 28% "disagreed", 24% "strongly disagreed", 10% "agreed" and 3% strongly agreed. **(Table 30 - Appendix B)**

Furthermore, it should be noted that the respondent's clear intention to copy software in the near future was assessed. The responses were as follows: 35% "strongly disagree", while 1% "strongly agree" **(Table 31 - Appendix B)**. Moreover, the respondents' intention to attempt to copy software in the near future was evaluated. The results were as follows: 35% "strongly disagree, while 1% "strongly agree" **(Table 32 - Appendix B)**. Additionally, 24% "strongly disagree" that they will not make an effort to copy software in the near future, while 2% "strongly agree" that they will not do so. 30% "strongly disagree" that if they have the opportunity they would commit software piracy, while 2% "strongly agree" that if they had the opportunity, they would commit software piracy **(Table 33 & 34 - Appendix B)**. Finally, 21% of the respondents "strongly disagree" that they would never commit software piracy, while 6% "strongly agree" that they would do so **(Table 35 - Appendix B)**.

4. EMPIRICAL STUDY

A regression analysis test was conducted to analyze the independent variables (Social norms, Economical changes and Awareness) and the dependent variables (Music piracy behavior and Music piracy intentions). The below **Tables 36 & 37** provide an insight into the regression analysis data (**Table 38 & 39– Appendix B**)

Table 36. Regression Analysis – Music Piracy Behavior as a dependent variable

Music Piracy Behavior	Beta	SE	95% CI		β	P
			LL	UL		
Awareness	-.027	.051	-.127	.073	-.036	.598
Social Norms	.396	.060	.278	.515	.444	<.001
Economic changes	-.091	.031	-.152	-.030	-.198	.004

Multiple regression analysis was conducted to test if Social Norms, Economic changes and Awareness significantly predicted music piracy behavior. (**Table 36**)

Multiple Regression analysis was used to test if Social Norms significantly predicted Music piracy behavior. The result of the regression indicated that the predictor explained 26.7% of the variance (R-squared = 0.267, $F(3, 167) = 20.241$, $p < .001$). Social norms were found to significantly predict music piracy behavior ($B = 0.444$, $p < .001$). Therefore, hypothesis H1.a is supported as Social norms showed statistical significance on music piracy behavior. (**Table 38 – Appendix B**)

Additionally, when testing if Economic changes significantly predicted music piracy behavior. The result of the regression indicated that the predictor explained 26.7% of the variance (R-squared = 0.267, $F(3, 167) = 20.241$, $p < .001$). Economic changes were found to significantly predict music piracy behavior ($B = -0.198$, $p < .004$). Therefore, hypothesis H2.a is supported as Economic changes showed statistical significance on music piracy behavior. (**Table 38 – Appendix B**)

Finally, testing if Awareness significantly predicted music piracy behavior showed that the regression for predictor explained 26.7% of the variance (R-squared = 0.267, $F(3, 167) = 20.241$, $p < .001$). Awareness levels did not predict Music piracy behavior ($B = -0.36$, $p = 0.598$). Consequently, the hypothesis H3.a is not supported indicating that awareness levels do not have a statistically significant impact on music

piracy rates as the statistical significance did not reach the conventional threshold of 0.05. **(Table 38 – Appendix B)**

Table 37. Regression Analysis – Music Piracy Intentions as a dependent variable

Music Piracy Intentions	Beta	SE	95% CI		β	P
			LL	UL		
Awareness	.048	.062	-.075	.170	.055	.442
Social Norms	.404	.073	.258	.549	.393	<.001
Economic changes	-.052	.038	-.127	.022	-.099	.168

Multiple regression analysis was conducted to test if Social Norms, Economic changes and Awareness significantly predicted music intentions. **(Table 37)**

Multiple Regression analysis was used to test if Social Norms significantly predicted Music piracy intentions. The result of the regression indicated that the predictor explained 17% of the variance (R-squared = 0.170, $F(3, 167) = 11.433$, $p < .001$). Social norms were found to significantly predict music piracy intentions ($B = 0.404$, $p < .001$). Therefore, hypothesis H1.b is supported as Social norms showed statistical significance on music piracy intentions. **(Table 39 – Appendix B)**

Additionally, when testing if Economic changes significantly predicted music piracy intentions. The results of the regression indicated that the predictor explained 17% of the variance (R-squared = 0.170, $F(3, 167) = 11.433$, $p < .001$). Economic changes did not predict Music Piracy intentions ($B = -0.052$, $p < .168$). Hence, hypothesis H2.b is not supported indicating that Economic changes do not have a statistically significant impact on music piracy intentions as the statistical significance did not reach the conventional threshold of 0.05. **(Table 39 – Appendix B)**

Finally, testing if Awareness significantly predicted music piracy intentions showed that the regression for predictor explained 17% of the variance (R-squared = 0.170, $F(3, 167) = 11.433$, $p < .001$). Awareness levels did not predict Music piracy intentions ($B = 0.048$, $p = 0.442$). Consequently, hypothesis H3.b is not supported indicating that awareness levels do not have a statistically significant impact on music piracy intentions as the statistical significance did not reach the conventional threshold of 0.05. **(Table 39 – Appendix B)**

5. RESULTS AND DISCUSSION

This research provides information and theory about the factors affecting music piracy. Hence, this study contributes to existing literature in different theoretical means. Moreover, although previous studies were made on the effect of social norms on music piracy such as (Serenko, 2022) this paper contributes to confirming that theory as it was proved that social norms are significantly related to music piracy behavior and intentions.

A study by Park (2019), about ethical awareness and education campaigns have been found effective in reducing illegal behaviors. So, increasing awareness, promoting moral values, and enhancing ethical education can contribute to reducing piracy behavior and intentions. However, in this research no significance is found between increased awareness and music piracy behavior and intentions. This lack of significance could be attributed to various factors. Firstly, the sample size or characteristics of the participants might not be fully representative of the diverse demographics of the respondents under study. Secondly, the time frame might not have allowed sufficient observations of changes in behavior. Third, cultural differences, media influences and unaccounted variables such as social pressure could also play a role.

Additionally, Tomczyk (2021) showed that insufficient financial resources are often one of the reasons for engaging in piracy. However, the study found out that the correlation between better financial situation and reduced piracy is not accurate, other factors such as ethical perceptions play a role in increasing piracy behavior and intentions. This implies that even with better financial resources, the ethical considerations surrounding piracy still play a role in determining one's intention to engage in such activities. Moreover, this research found a significant relationship between better economic changes and reduction in music piracy behavior, although no significant relationship between better economic changes and music piracy intentions was found, which implies that linking economic factors with other key elements such as ethical perception is important to understand the significance of the economic impact on piracy.

5.1 PRACTICAL IMPLICATIONS

The findings from this study provide relevant practical context on the key factors affecting music piracy. The main findings of the study revealed several key factors influencing music piracy. Firstly, as Xiong and Chang (2021) mentioned in their study, social norms show a direct influence on individuals' unethical consumer behavior in the digital era. This is highlighted in the analysis as positive social norms emerge as a significant driver and shows a statistically significant impact on individuals' engagement in music piracy behavior and intentions. Secondly, economic changes in the music industry displayed significance with music piracy behavior, which aligns with the literature review where Serenko (2021), found in his study

that price is a major factor driving the consumption of illicit digital content which sheds the light on the impact of economic changes. Additionally, better economic changes did not display significance with the reduction of music piracy intentions. This contradicts Wlömert & Papies (2019) as they suggested that in countries with higher income levels where individuals have more discretionary income available to them, individuals will be less likely to resort to piracy.

Finally, the awareness variable also showed no statistical significance, suggesting that higher awareness does not necessarily contribute to increased piracy. Those findings found different grounds in the literature as Tomczyk (2021) discussed the importance of strengthening copyright awareness among adolescents, parents and teachers. The study also suggests that by understanding the different dimensions of piracy which include its impact on the creative sector and the interests of creators, effective solutions can be designed to minimize piracy and raise awareness about intellectual property rights. Moreover, although various educational initiatives have been introduced related to piracy, statistics in European countries have remained relatively unchanged over the years.

The findings underscore the intricate web of influences that shapes individuals' engagement in music piracy, while also contributing to valuable insights for devising effective strategies to address this persistent challenge in the digital era.

5.2 LIMITATIONS

The main limitation in this study is that music piracy is a sensitive topic that may cause social stigma, legal concerns, or ethical considerations associated with admitting engagement in piracy activities. Moreover, when studying piracy through an online questionnaire, there is no certainty that the participants fully understand the aspect being studied or participants may not truthfully disclose their engagement in piracy activities which is why the questionnaire stated that the answers are anonymous with no ways to link identifiable data to the answers.

Furthermore, it is challenging to determine the impact of music piracy with an online questionnaire as this matter is subjective to each single participant. Different individuals may perceive the consequences differently and this subjectivity could introduce variability into the study results. To minimize those limitations, the questionnaire should be replaced with a better conducted experiment that allows us to notice the differences on the spot such as conducting in-depth interviews with individuals or focus groups to explore the motivations, perceptions and experiences of music piracy in a more open-ended manner. Additionally, time was another factor that influenced the research process.

6. CONCLUSIONS AND FUTURE WORKS

With the rapid advancements process happening in the world, music piracy remains one of the challenges that musicians, record labels, artists and policymakers confront. Previous studies have revealed that several factors impact music piracy rates including social norms, economic changes and awareness about piracy. This paper aimed to study the key factors affecting music piracy and a comprehensive analysis was conducted to understand and answer the following research questions: “What are the primary factors influencing music piracy behavior and intentions?”, and “How do social norms, awareness, and economic changes contribute to piracy?”. To study the relationship between our dependent variables (social norms, economic changes and awareness) and our independent variables (music piracy behavior and music piracy intentions), this research began with a comprehensive literature review to discuss prior research on the subject, followed by the development of six hypotheses aimed at understanding the impact of various factors on both music piracy behavior and music piracy intentions. Moreover, a quantitative research approach was used to answer the above-mentioned research questions and the required data was collected through an online survey which was created on Qualtrics XM. Additionally, to test the hypotheses that were established, data was evaluated using the Statistical Package for the Social Sciences (SPSS software v 29 testing model). Subsequently, various statistical analysis measurements were conducted, including Cronbach's alpha to check reliability and correlation and regression analysis to find relationships between variables. Furthermore, the data collected for this study helped to confirm that social norms have a significant impact on both music piracy behavior and intentions. Besides, the analysis revealed that economic changes may have a considerable effect on music piracy behavior, however no significance was found regarding its relationship with music piracy intentions. Apart from that, the analysis discovered a lack of statistical significance in the relationship between awareness and music piracy behavior and intentions.

To better enhance the research process, further research could investigate additional variables that may influence the relationship between awareness, economic changes and music piracy. It is possible that other factors or methodological approaches could yield different results. Moreover, future research would better focus on identifying a reasonable pricing system that can help reduce piracy and allow a balanced environment for music consumption. In addition, developing specific awareness programs that focus on providing information and raising awareness about the negative effects of piracy on artists and record labels alongside emphasizing the significance of safeguarding intellectual property is essential. This approach may cultivate positive social norms, particularly when initiated from early years. Furthermore, it would be beneficial to study piracy through a better conducted experiment such as in-depth interviews with individuals or focus groups to explore the motivations, perceptions and experiences of music piracy in a more open-ended manner. Apart from that, it is recommended for future research to allocate additional time to the research process, thereby facilitating a more comprehensive examination of the subject matter.

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APPENDIX A: ONLINE QUESTIONNAIRE

The factors that affect Music Piracy

Dear respondents,

Thank you for your interest in answering this voluntary survey. Your answers are highly appreciated.

My name is Mahmoud Jaber and I am currently a masters student in Marketing with a specialization in Marketing Research and CRM at Nova Information Management School. This survey is part of my dissertation work and will take less than 5 minutes.

Please read the questions carefully and answer them honestly.

All data that will be collected will be treated anonymously and will only be used for the purposes of this dissertation.

After you have completed the survey, I would appreciate it if you would share the link with your friends.

If you have further questions, you can email me at m20210820@novaims.unl.pt

Informed Consent Form

I declare that I am 18 or over 18 and agree to participate in this research. I declare that I was informed that my participation in this study is voluntary and that I can leave this survey at any time without penalty, and all data is confidential. I understand that I will evaluate responses and that this study does not offer serious risks.

I agree to participate.

I do not agree to participate.

Q1:

How much time, approximately, do you spend listening daily to music?

- ☐ Less than 1 hour
- ☐ 1 to 2 hours
- ☐ 2 to 3 hours
- ☐ 3 to 4 hours
- ☐ More than 4 hours

Q2:

On average, how much money do you spend monthly on music (on physical, digital tracks, or music services)?

- ☐ Less than 5\$
- ☐ 5 to 10\$
- ☐ 11 to 15\$
- ☐ 16 to 20\$
- ☐ More than 20\$

Q3:

Which devices do you use to listen to music? (Multiple Answers)

- ☐ Mobile phone
- ☐ Computer
- ☐ Other

Q4:

What is usually the source of the music you listen to? (Multiple Answers)

- ☐ Albums/songs bought at an online store
- ☐ Free internet downloads
- ☐ Video Streaming (ex.Youtube)
- ☐ Free Music Streaming
- ☐ Paid Music Streaming
- ☐ Albums bought at a physical store
- ☐ Other

Q5:

Do you currently have an account in a streaming platform (e.g. Spotify, Apple Music, Google Play Music, ...)?

- ☐ Yes, I have free version account
- ☐ Yes, I have paid version account
- ☐ No

Q6:

Please indicate the platform.

Q7:

Please remember that all your answers are anonymous, meaning we don't have ways to link any identifiable data to these answers. As such we appreciate your honesty!

Have you ever downloaded or shared music from unauthorized sources?

- ☐ Yes
- ☐ No

Q8:

How often do you do the following?

	Never	Once per month	2-3 times per month	4-5 times per month	Everyday
Download unauthorized digital music files from the Internet (e.g., BitTorrent, Pirate Bay, Gnutella, eDonkey).	☐	☐	☐	☐	☐
Download music illegally from online streaming services (e.g., YouTube music)	☐	☐	☐	☐	☐
Copy unauthorized music files from friends or relatives	☐	☐	☐	☐	☐

Q9:

Next, you will find a set of statements, please indicate how much you agree or disagree with them.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
People who are important to me think that music piracy is bad	☐	☐	☐	☐	☐
People who are important to me think that music piracy is unharmed	☐	☐	☐	☐	☐
People who are important to me think that music piracy is attractive	☐	☐	☐	☐	☐

Q10:

How many of your friends that you have known for the longest time have engaged in the following activities?

	None of them	A few of them	Some of them	Most of them	All of them
Downloaded unauthorized digital music from the Internet	☐	☐	☐	☐	☐
Asked you to let them copy the music that you had	☐	☐	☐	☐	☐
Proactively uploaded music to Web sites to share with others	☐	☐	☐	☐	☐

Q11:

To me, the act of unauthorized downloading or sharing of music is acceptable.

Strongly Disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree ☐

Q12:

To me, the act of unauthorized downloading or sharing of music is bad.

Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree ☐

Q13:

To me, the act of unauthorized downloading or sharing of music is foolish.

Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree ☐

Q14:

I would be more likely to download or share unauthorized music, if...
(Please chose all options that apply)

- ☐ I had limited knowledge about the legal alternatives and consequences of piracy.
- ☐ I knew I wouldn't get caught or face any consequences.
- ☐ The music was not available on any legal streaming platforms.
- ☐ I disagreed with the copyright laws and believed in free access to music.
- ☐ I didn't think it would harm the artists or the music industry.
- ☐ I received a recommendation from a friend or peer to download it illegally.
- ☐ I couldn't afford to purchase the music legally.

Q15:

If I obtain or share music without authorization, the probability that I would be caught is very high.

Strongly disagree
☐

Disagree
☐

Neither agree nor disagree
☐

Agree
☐

Strongly agree
☐

Q16:

I intend to copy software in the near future.

Strongly disagree
☐

Disagree
☐

Neither agree nor disagree
☐

Agree
☐

Strongly agree
☐

Q17:

I will try to copy software in the near future.

Strongly disagree
☐

Disagree
☐

Neither agree nor disagree
☐

Agree
☐

Strongly agree
☐

Q18:

I will not make an effort to copy software in the near future.

Strongly disagree
☐

Disagree
☐

Neither agree nor disagree
☐

Agree
☐

Strongly Agree
☐

Q19:

If I had the opportunity, I would commit software piracy.

Strongly disagree
☐

Disagree
☐

Neither agree nor disagree
☐

Agree
☐

Strongly agree
☐

Q20:

I would never commit software piracy.

Strongly disagree
☐

Disagree
☐

Neither agree nor disagree
☐

Agree
☐

Strongly agree
☐

Q21:

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Non-binary / third gender
- ☐ Prefer not to say

Q22:

What is your age group?

- ☐ 16-20
- ☐ 21-25
- ☐ 26-30
- ☐ 31-35
- ☐ 36-40
- ☐ 40+

Q23:

What is your occupation?

- ☐ Student
- ☐ Employed
- ☐ Self-employed
- ☐ Unemployed
- ☐ Retired
- ☐ Other

Q24:

What is your monthly income?

- ☐ Less than 1000 €
- ☐ 1001 to 2000 €
- ☐ 2001 to 3000 €
- ☐ 3001 to 4000 €
- ☐ More than 4000 €
- ☐ Prefer not to say

APPENDIX B: LIST OF TABLES

Table 4: Music Piracy Behavior Cronbach's alpha (SPSS output)

Scale: MusicPiracyBehavior

Case Processing Summary				
		N		
			%	
Cases	Valid	171	100.0	
	Excluded ^a	0	.0	
	Total	171	100.0	

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	
.934	.840	3	

Item Statistics			
	Mean	Std. Deviation	N
(1, Never)...	1.51	.910	171
(1, Never)...	1.66	1.102	171
(1, Never)...	1.40	.924	171

Table 5: Music Piracy intentions Cronbach's alpha (SPSS output)

Scale: AlphaMusicPiracyIntentions

Case Processing Summary				
		N		
			%	
Cases	Valid	171	100.0	
	Excluded ^a	0	.0	
	Total	171	100.0	

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	
.879	.881	5	

Item Statistics			
	Mean	Std. Deviation	N
(1, Strongly disagree)...	2.199	1.1612	171
(1, Strongly disagree)...	2.246	1.1923	171
(1, Strongly disagree)...	2.409	1.1359	171
(1, Strongly disagree)...	2.363	1.2164	171
Q28	2.591	1.2493	171

Table 6: Social Norms Cronbach's alpha (SPSS output)

Scale: AlphaSocialNorms

Case Processing Summary				
		N		
			%	
Cases	Valid	171	100.0	
	Excluded ^a	0	.0	
	Total	171	100.0	

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	
.762	.761	3	

Item Statistics			
	Mean	Std. Deviation	N
(1, None of them)...	2.51	1.190	171
(1, None of them)...	2.06	1.184	171
(1, None of them)...	1.75	1.096	171

Table 8: Correlations between variables (SPSS output)

Correlations						
	MusicPiracyBehvior	MusicPiracyIntentionss	SocialNorms	EconomicChanges	Awareness	
MusicPiracyBehvior	Pearson Correlation --					
	N	171				
MusicPiracyIntentionss	Pearson Correlation	.283**				
	Sig. (2-tailed)	< .001				
	N	171	171			
SocialNorms	Pearson Correlation	.474**	.399**			
	Sig. (2-tailed)	< .001	< .001			
	N	171	171	171		
EconomicChanges	Pearson Correlation	-.262**	-.143	-.132		
	Sig. (2-tailed)	< .001	.062	.086		
	N	171	171	171	171	
Awareness	Pearson Correlation	-.122	-.010	-.129	.144	
	Sig. (2-tailed)	.113	.897	.092	.060	
	N	171	171	171	171	171

** . Correlation is significant at the 0.01 level (2-tailed).

Table 10: Means (M) and Standard Deviation (SD) for all variables (SPSS output)

Descriptive Statistics			
	Mean	Std. Deviation	N
MusicPiracyBehvior	1.5244	.85093	171
MusicPiracyIntentionss	2.3614	.97867	171
SocialNorms	2.1072	.95291	171
EconomicChanges	2.7485	1.86009	171
Awareness	2.2924	1.13080	171

Table 11. What is your gender?

What is your gender?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	2	1.2	1.2	1.2
Male	90	52.6	52.6	53.8
Female	74	43.3	43.3	97.1
Non-binary / third gender	3	1.8	1.8	98.8
Prefer not to say	2	1.2	1.2	100.0
Total	171	100.0	100.0	

Table 12. What is your occupation?

What is your occupation? - Selected Choice				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	3	1.8	1.8	1.8
Student	17	9.9	9.9	11.7
Employed	108	63.2	63.2	74.9
Self-employed	19	11.1	11.1	86.0
Unemployed	18	10.5	10.5	96.5
Retired	2	1.2	1.2	97.7
Other	4	2.3	2.3	100.0
Total	171	100.0	100.0	

What is your occupation? - Other - Text				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 169	98.8	98.8	98.8	98.8
Freelancer	1	.6	.6	99.4
Journalist	1	.6	.6	100.0
Total	171	100.0	100.0	

Table 13. What is your monthly income?

What is your monthly income?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	8	4.7	4.7	4.7
Less than 1000 €	40	23.4	23.4	28.1
1001 to 2000 €	59	34.5	34.5	62.6
2001 to 3000 €	13	7.6	7.6	70.2
3001 to 4000 €	7	4.1	4.1	74.3
More than 4000 €	19	11.1	11.1	85.4
Prefer not to say	25	14.6	14.6	100.0
Total	171	100.0	100.0	

Table 14. What is your age?

What is your age group?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	1.2	1.2
	16-20	5	2.9	4.1
	21-25	29	17.0	21.1
	26-30	60	35.1	56.1
	31-35	25	14.6	70.8
	36-40	25	14.6	85.4
	40+	25	14.6	100.0
Total	171	100.0	100.0	

Table 15. Q1. How much time, approximately, do you spend listening to music daily?

How much time, approximately, do you spend listening daily to music?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 hour	49	28.7	28.7
	1 to 2 hours	60	35.1	63.7
	2 to 3 hours	29	17.0	80.7
	3 to 4 hours	16	9.4	90.1
	More than 4 hours	17	9.9	100.0
Total	171	100.0	100.0	

Table 16. Q2. On average, how much money do you spend monthly on music (on physical, digital tracks, or music services)?

On average, how much money do you spend monthly on music (on physical, digital tracks, or music services)?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5\$	122	71.3	71.3
	5 to 10\$	30	17.5	88.9
	11 to 15\$	12	7.0	95.9
	16 to 20\$	5	2.9	98.8
	More than 20\$	2	1.2	100.0
Total	171	100.0	100.0	

Table 17. Q3. Which devices do you use to listen to music?

Case Summary						
	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Which devices do you use to listen to music ^a	171	100.0%	0	0.0%	171	100.0%

a. Dichotomy group tabulated at value 1.

\$Which devices do you use to listen to music Frequencies				
	Responses		Percent of Cases	
	N	Percent		
Which devices do you use to listen to mu ^a	Mobile	157	60.4%	91.8%
	computer	78	30.0%	45.6%
	other	25	9.6%	14.6%
Total	260	100.0%	152.0%	

Table 18. Q4. What is usually the source of the music you listen to?

Case Summary						
	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Whatisthesourceofthemusicyoulistento*	171	100.0%	0	0.0%	171	100.0%

a. Dichotomy group tabulated at value 1.

\$Whatisthesourceofthemusicyoulistento Frequencies				
		Responses		Percent of Cases
		N	Percent	
Whatisthesourceofthemusicyoulistento*	Albums/songs bought at an online store)...	24	7.7%	14.0%
	Free	52	16.7%	30.4%
	video streaming	90	28.8%	52.6%
	(1, Free Music Streaming)...	68	21.8%	39.8%
	(1, Paid Music Streaming)...	62	19.9%	36.3%
	(1, Albums bought at a physical store)...	10	3.2%	5.8%
	(1, Other)...	6	1.9%	3.5%
Total		312	100.0%	182.5%

Q5. Do you currently have an account in a streaming platform (e.g. Spotify, Apple Music, Google Play Music, ...)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, I have free version account	56	32.7	32.7	32.7
	Yes, I have paid version account	65	38.0	38.0	70.8
	No	50	29.2	29.2	100.0
	Total	171	100.0	100.0	

Q6. Please indicate the platform.

Please indicate the platform.				
		Frequency	Percent	Cumulative Percent
Valid	.	59	34.5	34.5
	.	1	.6	35.1
	Amazon and Apple Music	1	.6	35.7
	Amazon Music	1	.6	36.3
	Anazon	1	.6	36.8
	Angami	1	.6	37.4
	anghami	1	.6	38.0
	Anghami	14	8.2	46.2
	Anghami, spotify	2	1.2	47.4
	Anghamj	1	.6	48.0
	Apple	2	1.2	49.1
	Apple music	6	3.5	52.6
	Deezer	1	.6	53.2
	Done	1	.6	53.8
	Google play	1	.6	54.4
	It's good	1	.6	55.0
	itunes	1	.6	55.6
	Smartphone	1	.6	56.1
	Sound cloud	1	.6	56.7
	Soundcloud	2	1.2	57.9
	spotify	2	1.2	59.1
	Spotify	52	30.4	89.5
	Spotify , apple music	1	.6	90.1
	Spotify and Anghami	1	.6	90.6
	Spotify and Anghami	1	.6	90.6
	Spotify, anghami, tidal	1	.6	91.2
	Spotify, Apple Music, Youtube Music	1	.6	91.8
	Tidal	1	.6	92.4
	Tidal, spotify	1	.6	93.0
	Tubib fm	1	.6	93.6
	youtube	1	.6	94.2
	Youtube	3	1.8	95.9
	YouTube	4	2.3	98.2
	YouTube music, Spotify	1	.6	98.8
	Youtube premium	1	.6	99.4
	Youtube, anghami	1	.6	100.0
	Total	171	100.0	100.0

Table 19. Q7. Have you ever downloaded or shared music from unauthorized sources?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	1.2	1.2	1.2
	Yes	82	48.0	48.0	49.1
	No	87	50.9	50.9	100.0
	Total	171	100.0	100.0	

Table 20. Q8.1. Download unauthorized digital music files from the Internet (e.g., BitTorrent, Pirate Bay, Gnutella, eDonkey).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	1.2	1.2	1.2
	Never	113	66.1	66.1	67.3
	Once per month	34	19.9	19.9	87.1
	2-3 times per month	14	8.2	8.2	95.3
	4-5 times per month	5	2.9	2.9	98.2
	Everyday	3	1.8	1.8	100.0
	Total	171	100.0	100.0	

Q8.2. Download music illegally from online streaming services (e.g., YouTube music)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	2.3	2.3	2.3
	Never	102	59.6	59.6	62.0
	Once per month	34	19.9	19.9	81.9
	2-3 times per month	17	9.9	9.9	91.8
	4-5 times per month	7	4.1	4.1	95.9
	Everyday	7	4.1	4.1	100.0
	Total	171	100.0	100.0	

Q8.3. Copy unauthorized music files from friends or relatives.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	7	4.1	4.1	4.1
	Never	119	69.6	69.6	73.7
	Once per month	25	14.6	14.6	88.3
	2-3 times per month	12	7.0	7.0	95.3
	4-5 times per month	5	2.9	2.9	98.2
	Everyday	3	1.8	1.8	100.0
	Total	171	100.0	100.0	

Table 22. Q9.1. People who are important to me think that music piracy is bad. (SPSS output)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	2.3	2.3	2.3
	Strongly disagree	28	16.4	16.4	18.7
	Somewhat disagree	37	21.6	21.6	40.4
	Neither agree nor disagree	46	26.9	26.9	67.3
	Somewhat agree	29	17.0	17.0	84.2
	Strongly agree	27	15.8	15.8	100.0
	Total	171	100.0	100.0	

Q9.2. People who are important to me think that music piracy is unharful. (SPSS output)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	6	3.5	3.5	3.5
	Strongly disagree	27	15.8	15.8	19.3
	Somewhat disagree	40	23.4	23.4	42.7
	Neither agree nor disagree	42	24.6	24.6	67.3
	Somewhat agree	42	24.6	24.6	91.8
	Strongly agree	14	8.2	8.2	100.0
	Total	171	100.0	100.0	

Q9.3. People who are important to me think that music piracy is attractive. (SPSS output)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	7	4.1	4.1	4.1
Strongly disagree	50	29.2	29.2	33.3
Somewhat disagree	26	15.2	15.2	48.5
Neither agree nor disagree	62	36.3	36.3	84.8
Somewhat agree	20	11.7	11.7	96.5
Strongly agree	6	3.5	3.5	100.0
Total	171	100.0	100.0	

Table 24. Q10.1. Downloaded unauthorized digital music from the Internet. (SPSS output)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	2	1.2	1.2	1.2
None of them	33	19.3	19.3	20.5
A few of them	61	35.7	35.7	56.1
Some of them	37	21.6	21.6	77.8
Most of them	27	15.8	15.8	93.6
All of them	11	6.4	6.4	100.0
Total	171	100.0	100.0	

Q10.2. Asked you to let them copy the music that you had. (SPSS output)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	4	2.3	2.3	2.3
None of them	67	39.2	39.2	41.5
A few of them	41	24.0	24.0	65.5
Some of them	40	23.4	23.4	88.9
Most of them	11	6.4	6.4	95.3
All of them	8	4.7	4.7	100.0
Total	171	100.0	100.0	

Q10.3. Proactively uploaded music to Web sites to share with others. (SPSS output)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	7	4.1	4.1	4.1
None of them	86	50.3	50.3	54.4
A few of them	38	22.2	22.2	76.6
Some of them	28	16.4	16.4	93.0
Most of them	7	4.1	4.1	97.1
All of them	5	2.9	2.9	100.0
Total	171	100.0	100.0	

Table 26. Q11. To me, the act of unauthorized downloading or sharing of music is acceptable. (SPSS output)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	3	1.8	1.8	1.8
Strongly Disagree	31	18.1	18.1	19.9
Disagree	43	25.1	25.1	45.0
Neither agree nor disagree	47	27.5	27.5	72.5
Agree	36	21.1	21.1	93.6
Strongly agree	11	6.4	6.4	100.0
Total	171	100.0	100.0	

Table 27. Q12. To me, the act of unauthorized downloading or sharing of music is bad. (SPSS output)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	1.8	1.8	1.8
	Strongly disagree	14	8.2	8.2	9.9
	Disagree	38	22.2	22.2	32.2
	Neither agree nor disagree	42	24.6	24.6	56.7
	Agree	50	29.2	29.2	86.0
	Strongly agree	24	14.0	14.0	100.0
	Total	171	100.0	100.0	

Table 28. Q13. To me, the act of unauthorized downloading or sharing of music is foolish. (SPSS output)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	2.3	2.3	2.3
	Strongly disagree	17	9.9	9.9	12.3
	Disagree	40	23.4	23.4	35.7
	Neither agree nor disagree	60	35.1	35.1	70.8
	Agree	36	21.1	21.1	91.8
	Strongly agree	14	8.2	8.2	100.0
	Total	171	100.0	100.0	

Table 29. Q14. I would be more likely to download or share unauthorized music, if...

Case Summary						
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$IwouldbemorelikelytoDownloadorShareUnauthorizedmusicif ^a	171	100.0%	0	0.0%	171	100.0%

\$IwouldbemorelikelytoDownloadorShareUnauthorizedmusicif Frequencies

		Responses		Percent of Cases
		N	Percent	
\$IwouldbemorelikelytoDownloadorShareUnauthorizedmusicif ^a	{1, I had limited knowledge about the legal alternatives and consequences of piracy.}...	87	15.6%	50.9%
	{1, I knew I wouldn't get caught or face any consequences.}...	81	14.5%	47.4%
	{1, The music was not available on any legal streaming platforms.}...	93	16.7%	54.4%
	{1, I disagreed with the copyright laws and believed in free access to music.}...	75	13.4%	43.9%
	{1, I didn't think it would harm the artists or the music industry.}...	80	14.3%	46.8%
	{1, I received a recommendation from a friend or peer to download it illegally.}...	73	13.1%	42.7%
	{1, I couldn't afford to purchase the music legally.}...	69	12.4%	40.4%
	Total	558	100.0%	326.3%

Table 30. Q15. If I obtain or share music without authorization, the probability that I would be caught is very high.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	6	3.5	3.5	3.5
	Strongly disagree	41	24.0	24.0	27.5
	Disagree	48	28.1	28.1	55.6
	Neither agree nor disagree	54	31.6	31.6	87.1
	Agree	17	9.9	9.9	97.1
	Strongly agree	5	2.9	2.9	100.0
	Total	171	100.0	100.0	

Table 31. Q16. I intend to copy software in the near future.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	2.3	2.3	2.3
	Strongly disagree	60	35.1	35.1	37.4
	Disagree	32	18.7	18.7	56.1
	Neither agree nor disagree	50	29.2	29.2	85.4
	Agree	23	13.5	13.5	98.8
	Strongly agree	2	1.2	1.2	100.0
	Total	171	100.0	100.0	

Table 32. Q17. I will try to copy software in the near future.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	2.3	2.3	2.3
	Strongly disagree	59	34.5	34.5	36.8
	Disagree	31	18.1	18.1	55.0
	Neither agree nor disagree	47	27.5	27.5	82.5
	Agree	28	16.4	16.4	98.8
	Strongly agree	2	1.2	1.2	100.0
	Total	171	100.0	100.0	

Table 33. Q18. I will not make an effort to copy software in the near future.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	1.8	1.8	1.8
	Strongly disagree	41	24.0	24.0	25.7
	Disagree	46	26.9	26.9	52.6
	Neither agree nor disagree	48	28.1	28.1	80.7
	Agree	30	17.5	17.5	98.2
	Strongly Agree	3	1.8	1.8	100.0
	Total	171	100.0	100.0	

Table 34. Q19. If I had the opportunity, I would commit software piracy.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	2.3	2.3	2.3
	Strongly disagree	51	29.8	29.8	32.2
	Disagree	35	20.5	20.5	52.6
	Neither agree nor disagree	44	25.7	25.7	78.4
	Agree	34	19.9	19.9	98.2
	Strongly agree	3	1.8	1.8	100.0
	Total	171	100.0	100.0	

Table 35. Q20. I would never commit software piracy.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	5	2.9	2.9	2.9
	Strongly disagree	35	20.5	20.5	23.4
	Disagree	37	21.6	21.6	45.0
	Neither agree nor disagree	52	30.4	30.4	75.4
	Agree	32	18.7	18.7	94.2
	Strongly agree	10	5.8	5.8	100.0
	Total	171	100.0	100.0	

Table 38. Regression Analysis – Music Piracy Behavior X Social norms, Awareness, Economic Changes (SPSS output)

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.516 ^a	.267	.253	.73521		

a. Predictors: (Constant), EconomicChanges, SocialNorms, Awareness

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1					
Regression	32.823	3	10.941	20.241	<.001 ^b
Residual	90.270	167	.541		
Total	123.093	170			

a. Dependent Variable: MusicPiracyBehavior
b. Predictors: (Constant), EconomicChanges, SocialNorms, Awareness

Coefficients ^a							
Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B Lower Bound Upper Bound
1	(Constant)	1.000	.208		4.817	<.001	.590 1.410
	Awareness	-.027	.051	-.036	-.528	.598	-.127 .073
	SocialNorms	.396	.060	.444	6.594	<.001	.278 .515
	EconomicChanges	-.091	.031	-.198	-2.940	.004	-.152 -.030

a. Dependent Variable: MusicPiracyBehavior

Table 39. Regression Analysis – Music Piracy Intentions X Social norms, Awareness, Economic Changes (SPSS output)

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.413 ^a	.170	.155	.89938		

a. Predictors: (Constant), EconomicChanges, SocialNorms, Awareness

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1					
Regression	27.743	3	9.248	11.433	<.001 ^b
Residual	135.082	167	.809		
Total	162.825	170			

a. Dependent Variable: MusicPiracyIntentionss
b. Predictors: (Constant), EconomicChanges, SocialNorms, Awareness

Coefficients ^a							
Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B Lower Bound Upper Bound
1	(Constant)	1.545	.254		6.081	<.001	1.043 2.046
	Awareness	.048	.062	.055	.770	.442	-.075 .170
	SocialNorms	.404	.073	.393	5.492	<.001	.258 .549
	EconomicChanges	-.052	.038	-.099	-1.383	.168	-.127 .022

a. Dependent Variable: MusicPiracyIntentionss

APPENDIX C: SURVEY QUESTIONS WITH REFERENCES

Table 2. Questions including references.

Question	Reference
Q1. On average, how much time do you spend listening to music, on a daily basis?	Nunes (2018)
Q2. On average, how much do you spend monthly on music (on physical, digital tracks or music services)?	Nunes (2018)
Q3. Which devices do you use to listen to music? (Multiple Answers)	Nunes (2018)
Q4. What is usually the source of the music you listen to? (Multiple Answers)	Nunes (2018)
Q5. Do you currently have an account in a streaming platform (e.g. Spotify, Apple Music, Google Play Music, ...)?	Nunes (2018)
Q6. (If yes, in which platform?)	Nunes (2018)
Q7. Have you ever engaged in stream-ripping?	Nunes (2018)
Q8. How often do you do the following things? (never, a few times a year, 2–3 times per month, once a week, 2–3 times per week, 4–5 times per week, every day) 8.1 Download unauthorized digital music files from the Internet (e.g., BitTorrent, Pirate Bay, Gnutella, eDonkey). 8.2 Copy unauthorized music files from friends or relatives. 8.3 Buy unauthorized/pirate music CDs.	Wang, Yang, and Bhattacharjee (2011)
Q9. People who are important to you think that music piracy is 1 = bad/7 = good.	Wang, Yang, and Bhattacharjee (2011)
Q10. People who influence your behavior think that music piracy is 1 = foolish/7 = good.	Wang, Yang, and Bhattacharjee (2011)
Q11. People whose opinions you value think that music piracy is 1 = unattractive/7 = attractive.	Wang, Yang, and Bhattacharjee (2011)
Q12. How many of your friends that you have known for the longest time have engaged in the following activities? (none of them, a few of them, some of them, half of them, more than half, most of them, all of them) Q12.1 Obtain: Downloaded unauthorized digital music from the Internet. Q12.2 Let copy: Asked you to let them copy the music that you had. Q12.3 Upload: Proactively uploaded music to Web sites to share with others.	Wang, Yang, and Bhattacharjee (2011)
Q13. To me, the act of unauthorized downloading of music is unacceptable/acceptable	Wang, Yang, and Bhattacharjee (2011)

Q14. To me, the act of unauthorized downloading of music is bad/good	Wang, Yang, and Bhattacharjee (2011)
Q15. To me, the act of unauthorized downloading of music is foolish/wise	Wang, Yang, and Bhattacharjee (2011)
Q16. I would be more likely to download or share unauthorized music, if...	Wang, Yang, and Bhattacharjee (2011)
Q17. If I obtain or share music without authorization, the probability that I would be caught is 1 = very low/7 = very high.	Wang, Yang, and Bhattacharjee (2011)
Q18. I intend to copy software in the near future.	Spark, L. (2010)
Q19. I will try to copy software in the near future	Spark, L. (2010)
Q20. I will not make an effort to copy software in the near future	Spark, L. (2010)
Q21. If I had the opportunity, I would commit software piracy	Spark, L. (2010)
Q22. I would never commit software piracy	Spark, L. (2010)
Q23. What is your gender?	Nunes (2018)
Q24. What is your age group?	Nunes (2018)
Q25. What is your occupation?	Nunes (2018)
Q26. What is your monthly income?	Nunes (2018)

APPENDIX D: NOVA IMS ETHICS COMMITTEE SURVEY ACCEPTANCE



This is to certify that
Project No.: **DDMKT2023-7-62285**
Project Title: **Piracy in The Music Industry**
Principal Researcher: **Mahmoud Jaber**

according to the regulations of the Ethics Committee of NOVA IMS and MagIC Research Center this project was considered to meet the requirements of the NOVA IMS Internal Review Board, being considered **APPROVED** on 7/6/2023.

It is the Principal Researcher's responsibility to ensure that all researchers and stakeholders associated with this project are aware of the conditions of approval and which documents have been approved.

The Principal Researcher is required to notify the Ethics Committee, via amendment or progress report, of

- Any significant change to the project and the reason for that change;
- Any unforeseen events or unexpected developments that merit notification;
- The inability of the Principal Researcher to continue in that role or any other change in research personnel involved in the project.

Lisbon, 7/6/2023

NOVA IMS Ethics Committee
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