Universidade do Minho
Escola de Economia e Gestão

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Online music streaming services: What motivates consumers' intention to go premium?: A study of the factors that may influence the intention to adopt Music as a Service

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ABSTRACT

This thesis has as its primary purpose the analysis of consumers' intention to use the paid version of a music streaming service. The objective is to develop and test a model which includes consumers' views and attitude toward piracy, the importance given to several platform attributes, the perceived value of these paid services and their influences on willingness to pay and intention to use.

The responses of 924 individuals were analysed using a Structural Equations Model.

The results show that attitude toward piracy does not influence the intention to use a paid music streaming service, while the perceived value of the service and the willingness to pay for it positively influence the behavioural intention.

The limitations of this research are mainly related to the methodology, in which the quantitative nature of this study cannot fully incorporate the complexity of the music consumption behaviour, hence further research should also integrate a qualitative dimension.

The practical implications include, for example, the improvement of platform attributes to assure a differentiation factor between services; special prices campaigns to certain consumer segments; and marketing campaigns at arts and music events.

This research adds to the literature by evaluating the effects (or lack thereof) of platform attributes and attitude toward music piracy on young people's intentions to use paid streaming services.

Keywords: Music Streaming Services, Music Piracy, Consumer Behaviour, College Students, SEM

RESUMO

Esta dissertação tem como seu principal propósito analisar a intenção de utilizar a versão paga de um serviço de streaming de música. O objetivo é desenvolver e testar um modelo que inclui as perceções e atitudes em relação à pirataria, a importância dada aos diferentes atributos das plataformas de streaming, o valor percecionado destes serviços, e as suas influências na disponibilidade a pagar e na intenção de uso.

As respostas de 924 indivíduos foram utilizadas na análise de um Modelo de Equações Estruturais.

Os resultados demonstraram que a atitude em relação à pirataria não influencia a intenção a pagar por um serviço pago de streaming, enquanto que o valor percecionado do serviço e a disponibilidade a pagar influenciam positivamente esta intenção comportamental.

As limitações deste estudo estão maioritariamente relacionadas com a metodologia, pois a sua natureza quantitativa não incorpora totalmente a complexidade do comportamento de consumo de música, pelo que uma pesquisa futura poderia incluir uma dimensão qualitativa.

As aplicações práticas incluem, por exemplo, a melhoria dos atributos das plataformas de streaming, de modo a assegurar uma diferenciação do produto; campanhas de preços especiais para certos segmentos de consumidores; e campanhas de marketing em eventos de arte e música.

Este estudo contribui para a literatura através da avaliação dos efeitos (ou falta deles) dos atributos e da atitude em relação à pirataria, na intenção dos jovens em utilizar serviços pagos de streaming de música.

Palavras-Chave: Serviços de Streaming de música, Pirataria, Comportamento do Consumidor, Estudantes Universitários, Equações Estruturais.

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LIST OF ABBREVIATIONS

AVE- Average Variance Extracted

ATP- Attitude Toward Piracy

CD- Compact Disk

CFA- Confirmatory Factorial Analysis

CFI- Comparative Fit Index

DRM- Digital Rights Management

DST- Digital Sell Through

IFPI- International Federation of the Phonographic Industry

IS- Information Systems

MaaS- Music as a Service

MWTP- Marginal Willingness to Pay

NFI- Normed Fit Index

P2P- Peer-to-peer

PBC- Perceived Behavioural Control

RMSEA- Root Mean Square Error of Approximation

SEM- Structural Equation Model

SCR- Scale Composite Reliability

TAM- Technology Acceptance Model

TIB- Theory of Interpersonal Behaviour

TLI- Tucker-Lewis Index

TPB- Theory of Planned Behaviour

TRA- Theory of Reasoned Action

UTAUT- Unified Theory of Acceptance and Use of Technology

WTP- Willingness to Pay

1. INTRODUCTION

1.1 Context

The music industry has been continuously evolving ever since technology allowed the digitalization of music and the propagation of internet access. At first, when the music industry entered the digital age, the traditional record sales began to fall drastically, causing major losses in the industry's revenues. This tendency started with the launch of peer-to-peer file sharing websites, like Napster, quickly becoming the phenomenon commonly known as digital piracy, the illegal copying/downloading of copyrighted files, which the industry has fought ever since.

However, with the rise of digital distribution channels, the music industry has undergone a huge transformation as a response to the steady replacement of traditional sales by online music downloading. Music streaming is now becoming the alternative for many online music services due to the development of mobile devices and the increasing availability of subscription services (IFPI, 2016).

The music industry achieved a key milestone in 2015, as for the first time ever, digital music became the primary revenue stream, accounting for 45% of total revenues (43% of the total digital sales belong to streaming), compared to the 39% for physical sales (IFPI, 2016). It was also the first year, in almost two decades of decline, that the industry had a significant growth in revenues, growing about 3.2% (IFPI, 2016). These numbers are a positive indicator of the tendency that streaming is now becoming the norm instead of the alternative.

Music streaming services can be classified into different types according to their core business model, whether their revenue source is advertisement-based or subscription-based, or the hybrid version that combines both: ad-based free tier and one subscription tier that charges a monthly fee and offers no advertisements and additional benefits (Thomes, 2013). Examples of the latter are services like *Spotify* and *Deezer*, whose main strategy is to attract users with their free basic versions, and then try to get them to update to the paid subscription one (Kim et al, 2017). Subscription of music services is growing rapidly, with an estimate of 68 million people worldwide are currently paying for a music subscription, up from 41 million in 2014 and a mere eight million in 2010 (IFPI, 2016).

However, there are issues within the streaming industry, in which its profitability is a major concern. While free streaming has been imperative in attracting new consumers from the illegal downloading environment, there is a value gap that is raising this uncertainty regarding the

sustainability and profitability of the ad-based free models. In numbers, with its 900 million users, ad-based models sum up about $634 million, while subscription models (with an estimate of 68 million users), sum up an estimate of $2 billion (IFPI, 2016), translating this obvious value gap problem. Therefore, it is ultimately the consumers' preferences that will determine the outcome and the future of the streaming industry (Kim et al., 2017).

Nevertheless, and despite all the efforts done by the industry, online music piracy hasn't been eradicated, remaining a still very popular way of consuming music. Consumers could perceive streaming as a substitute for piracy, since they can still access large collections of songs for free (Borja & Dieringer, 2016). However, consumers might also view streaming as a complement to music piracy, using streaming as a sampling method, listening and discovering new tracks and then acquiring those illegally. Whether legal or illegal, the current music consumption context has provided consumers with numerous possibilities. Consequently, there is a need to further study the music platform attributes such as price, quality and other perks, that consumers might show preference (Weijters et al., 2014).

In conclusion, music streaming services are already well immersed into the music consumption habits of consumers, and have been increasingly becoming the main mode of music consumption. Nonetheless, it is the paid premium versions of streaming services that are responsible for the most part of revenue gains in digital music (IFPI, 2016). Therefore, it is important to understand what motivates consumers to use these services and how to attract them to the paid-tier.

1.2 Motivations

With the rise of music streaming, the number of consumers has exploded (IFPI, 2016), making it more important than ever for the industry to understand consumer behaviour. Consumers now combine multiple platforms for consuming their music, whether they are of the legal or illegal nature, each incorporating a multitude of different attributes that influence their music listening experience. There is little research that incorporates music piracy in these new legal consumption alternatives (Sinclair & Green, 2016). Online music piracy is still a very sought after form of consumption, even with the rise of legal alternatives such as streaming services, thus, with the constant changes in the music scenario, industry stakeholders need to develop new approaches to music piracy in this new context.

Despite the growing popularity of music streaming services, and its inclusion in the way people now consume music, the overwhelming use of free basic streaming models is a cause of concern to the industry due to its apparent lack of profitability (Kim et al., 2017).

Therefore, gaining insight about the legal and ethical implications of their behaviour, as well as the motivations and preferences of platform attributes is imperative for delineating strategies for the future of music streaming and the music industry.

1.3 Research problem and objectives

The research surrounding music streaming services and consumer behaviour has been quite scarce so far, leading to some research gaps that need to be addressed. In the last decade, most literature focused primarily on online music piracy (e.g. Cronan & Al-Rafee, 2008; Sinha & Mandel, 2008; Yoon, 2011); however, in the recent years, with the surfacing of music streaming services, researchers have started to focus on this new reality. Whilst some researches have started to merge these two topics (Borja & Dieringer, 2016; Cesareo & Pastore, 2014), to our prior knowledge, there hasn't been any research that combines the product attributes of streaming services and the piracy behaviour component. Hence, this research intends to cover these research gaps and contribute to the literature.

This research aims to understand what motivates young consumers to adopt a paid version of a streaming service. It starts from the following research problem: What factors determine the intention to use paid music streaming services? In particular, the research intends to discover the role of platform attributes (e.g. quality, delivery method, price) in the perceived value of paid streaming services and its influence on the intention to use and willingness to pay for paid music streaming services, also adding the attitude toward online music piracy as a predictor. To reach its main purpose, the research suggests a different approach to this topic, combining the already extensively researched music piracy consumption behavioural models and attribute-based models to measure consumers' intention to use the paid version of a streaming service and their willingness to pay for such service.

The quantitative research design included a questionnaire, completed by 972 college students from universities throughout the country, and the hypotheses described in section 3 were tested. Using a structural equations model, the results showed that the intention to use the paid version of a streaming service is influenced by the willingness to pay and the perceived value of the service; contrary to what was proposed, the attitude toward piracy does not have any effect on the intention.

The main contribution of this thesis is the evaluation of the effects (or lack thereof) of platform attributes and attitude toward music piracy on young people's intentions to use paid streaming services.

The rest of the thesis is as follows. Section 2 provides a literature review, in which topics such as music piracy, the new business models and consumer behaviour are discussed; the following section presents the conceptual framework and hypothesis development; providing a deeper discussion about the topics being researched. The subsequent sections are research methodology and results. The thesis concludes with a section for discussion and conclusions, followed by the limitations and future research.

2. LITERATURE REVIEW

In this section, the relevant literature regarding the topic in study will be discussed. Firstly, music piracy as a phenomenon and what lead to its rise will be discussed; following by the discussion of the different studies on the effect of piracy on the music industry and its role on the demise of the industry's revenues. Furthermore, it'll be provided a description of the evolution of the business models, with special emphasis on music streaming services, and how they've been changing the music business landscape. Lastly, this literature review will provide a take on the variety of studies on music consumption behaviour, firstly under the scope of music piracy, followed by the newer studies on consumer behaviour toward music streaming services.

Music has traditionally been perceived as a physical good, since it has always been sold to consumers as a bundle of songs using a physical medium, such as cassettes and CDs (Koh, Murthi, & Raghunathan, 2014). However, music no longer has a physical support, given the digitalization of the music industry. Koh, Murthi, & Raghunathan (2014) define digital music as "music delivered to consumers as individual songs without using a physical medium".

Music, as any other cultural good, is considered an experience good, since its quality and other attributes can't neither be measured nor learnt, even after consumption (Molteni & Ordanini, 2003). Digital music also has the characteristics of an information good. According to Dewan & Ramaprasad (2014), the information goods nature of songs makes them "shareable, free, and able to be distributed unbundled from the album". In an economic sense, it has the same characteristics as a public good: it is non-rivalrous (sharing does not reduce the consumer's utility) and non-excludable (its consumption cannot be prevented by another individual) (Bhattacharjee, Gopal, & Sanders, 2003; Cesareo & Pastore, 2014).

The availability of software able to compress sound and store it in small files, made easy the sharing of files through the internet, marking the emergence of a "peer to peer" (P2P) model of music consumption, such as Napster (Molteni & Ordanini, 2003). The appearance of Napster in 1999, allowed consumers to share large quantities of stolen music anonymously, and it rapidly became widely used throughout the world (Waldfogel, 2010). Therefore, the information goods nature of digital music, allied with technology, has resulted into the biggest problem the music industry has ever faced, i.e. piracy.

2.1 Piracy

Online music piracy is referred as the illegal duplication and distribution of sound recordings, which includes peer-to-peer file sharing networks and recording music from internet platforms such as Youtube; while digital music is referred in literature as licensed digital music (Koh et al., 2014), including all music downloaded as single tracks, albums, kiosk, digital music video and other music streaming (see riaa.com, Recording Industry Association of America). Digital piracy also consists on infringing intellectual property laws, which are made in order to protect information goods such as music (Belleflamme & Peitz, 2014). The violation of copyright laws has been disrupting the objective of maximizing society's welfare, which is why understanding the effects of piracy is a very important matter for economists (Aguiar & Martens, 2016). Therefore, it is crucial to understand not only the consumers' perspective of piracy, but also the economic implications of piracy.

2.1.1 Sales Displacement and Sampling Effect

The consumption of unlicensed music is worrisome because it could lead to a decrease in the music industry's revenues, possibly causing a reduction in the supply of innovative music. However, in order for this to be true, licensed and unlicensed music must be considered close substitutes (Aguiar & Martens, 2016). As stated before, the launch of Napster and other peer-to-peer file sharing services caused a major drop in physical music sales. A large number of empirical studies have tried to estimate the extent to which this decrease in sales could be attributed to digital music piracy, i.e., they tried to estimate the sales displacement effect of piracy on physical music sales. According to Waldfogel (2010), the question whether piracy displaces music sales depends on whether the songs obtained via file sharing would have been purchased had they not been available any other way. If the songs are valued above the price, then file sharing displaces sales; on the other hand, if the song valuation is below the price (and would otherwise not been consumed), then file sharing does not displace music sales. Since consumers' tastes are heterogeneous, their willingness to pay will be above or below the market price, leading to an average displacement rate between zero and one (Aguiar & Martens, 2016).

Among the growing literature regarding music piracy, there can be established three different approaches to the sales displacement problem. Some papers use aggregate data at the geographic level in order to compare the music sales levels in different locations, so that they can cross-reference the data with places with higher levels of piracy (typically using a proxy for the development of file sharing). This approach includes studies such as Peitz & Waelbroeck (2004) and Liebowitz (2008), which find some level of displacement of physical music purchases. A second approach uses record

sales data, examining the product over time and seeing whether records that are downloaded more (stimulation) or less (sales displacement). Examples of studies using this approach include Oberholzer-Gee & Strumpf (2007), making a weekly panel of album sales and unlicensed downloads and finding that file-sharing has an effect on sales that is indistinguishable from zero; and Hammond (2014) who studies the effects of file-sharing on album sales by exploiting the unavailability of licensed copies on file-sharing networks, before their official release date, concluding that the casual effect of file-sharing of an album on its sale is essentially zero. A third approach uses individual-level (survey) data to assess the links between individuals' purchase and illegal downloading activity. Studies who use this approach include Zentner (2006) and Waldfogel (2010). The literature regarding sales displacement usually concludes that piracy hurts legitimate sales, although sales displacement rates may vary. Typically, these rates are below 1, which means that much of what is downloaded wouldn't have been purchased had they not been available through file-sharing networks.

Some authors have an alternate view on piracy, claiming that unlicensed music consumption could also, in theory, stimulate licensed music consumption. This is due to the fact that music, being an experience good, can allow consumers to sample music before purchase, informing them on what to buy. Incidentally, the sampling of a song may also stimulate individual demand for other songs by the same artist (Peitz & Waelbroeck, 2006; Shapiro, Varian & Becker, 1999). Belleflamme & Peitz (2014) state that digital products generate *network effects*, i.e., the higher the number of consumers of that product, the higher the attraction to said product. This effect happens with software or with cultural products (whose popularity increases with word-of-mouth), and it reflects in the overall number of consumed products, whether they are legitimate or not, increasing consumers' willingness to pay for legitimate copies. Belleflamme & Peitz (2014) also state that piracy has an *indirect appropriation* characteristic, which means that piracy can also stimulate demand for complementary products, such as concert tickets. On this note, Curien & Moreau (2009) and Dewenter, Haucap & Wenzel (2012) study the existence of this positive externality, showing theoretically that there is a positive effect between piracy and the demand for live music. Hence, through a vertical integration of music labels in the live music industry (the renegotiation of contracts between artists and record labels), file-sharing can lead to a higher profit for both parts. Mortimer, Nosko & Sorensen (2012) find that digital piracy, despite reducing record sales, increased live performance revenues for small artists.

Most of the studies regarding sales displacement and sampling focus on physical music sales. However, the digitalization of music also brought about several ways of purchasing licensed digital individual songs (as opposed to the entire albums), changing consumers' willingness to pay for music

(for example, the launch of the iTunes music store in 2003 gave consumers the option of buying a single song, legally, for $0,99). Elberse (2010) finds that the "unbundling" in digital format negatively and significantly affected the volume of sales in the music industry. This is, despite the growth of the importance of digital music in the overall music revenues, it is failing to substitute the revenue loss from physical albums. Studies exploring the effects of piracy on digital music sales and physical music sales include the works of Waldfogel (2010) and Bastard, Bourreau & Moreau (2014). Koh et al. (2014) suggest that the introduction of new ways of consuming music (starting in 2003 with iTunes) contributed to weaken the negative effect of online piracy on physical music sales, being that it was the legal sales of digital music that displaced physical music sales.

Given the technological advances that have catapulted the industry into a new path, where different business models have emerged and changed the way consumers and the industry itself perceive music, it is imperative to understand their nature and how they might affect the industry.

2.2 Business Models/ Servitization

Technological advances allowed for the digitalization of music, thus allowing consumers to engage in acts of piracy. To fight this tendency, the music industry has been moving from focusing on selling music as a physical good towards creating value from selling music in digital formats, thus developing new business models (Myrthianos et al., 2016). Music can now be perceived by the consumer as both a product and a service (Parry, Bustinza, & Vendrell-Herrero, 2012). The online market is a highly paced environment, with demand, competition and technology in constant change (Wirtz, Mathieu, & Schilke, 2007). The first efforts of selling digital music had very limited offers, those being the two digital formats (single and album) with a unique price. Today, however, downloads, music streaming, internet radios and other subscription-based music services (SBMS) have become the norm of consumption by the ever-growing number of digitally embracing, multiple device connected, global consumers and the main source of revenue for the industry (Cesareo & Pastore, 2014).

Papies et al. (2011) establish three different alternatives of online music consumption. The first one relies of the principle of digital sell through (DST), and offers singles or bundles of songs on a download-to-own basis (e.g. iTunes and Amazonmp3). Secondly, there is the subscription model. Using this model, consumers pay a monthly fixed-fee and have unrestricted access to the complete platform's repertoire. These services typically provide users with on-demand, advertisement-free, and superior quality listening on both fixed and mobile devices (Aguiar, 2015). Using this model are streaming

services, such as Spotify, Deezer and Napster 2.0. Papies et al. (2011) establish a third alternate model, the ad-based model, which uses advertising as the main source of revenue and offer users a free membership with restrictions on usage. Therefore, consumer listening is interrupted by advertisement, and on-demand streaming mobility is not accessible (Aguiar, 2015), with users only being able to shuffle through playlists or albums. The most popular streaming services (*Spotify* and *Deezer*) use both models in their overall business model, also known as "freemium model", in which users have the opportunity of becoming a *premium* user, paying the monthly fee and having unlimited on-demand with full mobility (i.e. mobile and offline listening) access to the platform (Aguiar, 2015).
There are also some services that combine these models. Services such as iTunes and Amazon have gone beyond their digital music selling days, adding their own streaming services to the offer (e.g. Apple Music, Amazonmp3 and Google Music Play all use this new combined model). Another example of this market tendency is *Youtube*, who recently unveiled a new paid service (*Youtube* Red, which is currently unavailable in Portugal), combining the streaming of music, no advertisements, mobility and offline usage, as well as adding *Youtube* original content.

2.2.1 Streaming effects on the music industry

On this note, we can conclude that streaming music distribution is rapidly becoming one of the most widely used ways of consuming music, raising questions about its impact on the revenue generated by the recorded industry. Although the literature regarding streaming is still quite scarce, there are a few studies about these matters that address the ever-growing worries of the music industry, those being whether streaming depresses or stimulates music sales. As previously established, music is an experience good meaning that, in theory, online music streaming can either act as a substitute or a complement for other modes of music consumption (Aguiar, 2015). Again, understanding whether streaming stimulates or displaces music sales is vital to fully understand its impact on the music industry's revenues. Aguiar (2015) argues that some consumers may use streaming as a way of listening to music that they would otherwise have bought or illegally downloaded, while others may use it to sample new products to obtain information about it and make more thoughtful purchases or acquire them using other means. There is also a music discovery effect, in which users discover new products that they wouldn't otherwise listen to, hence would never have bought them or illegally acquired them.

Some papers have studied the effects of music streaming using *Youtube* on digital music sales. Hiller (2016) exploits the removal of Warner Music content from *Youtube* between January and October

of 2009, as a plausible natural experiment to analyse the possible impact of online content availability on album sales. He finds a substantial sales displacement effect of *Youtube* video consumption on the best-selling albums, while less-known albums enjoy a promotional effect. His results also show no evidence of sales displacement on albums below the top 50. Kretschmer & Peukert (2014), on the other hand, take advantage of the royalty dispute between *Youtube* and the German collecting society and performance rights organization (GEMA), which led to the blocking of certain music videos in Germany. They use this dispute as a means of studying the link between sampling on *Youtube* and purchases at the iTunes store. Comparing data from sales in Germany and sales in other nine different countries without the restriction of music videos, they find no evidence of sales displacement from free sampling on *Youtube*. While online music videos indeed trigger album sales, they have no effect on the sales performance of individual songs.

Aguiar & Waldfogel (2016) use the exponential growth in Spotify use between 2013 and 2015, to measure its impact on unlicensed consumption and on the sales of recorded music. They find a significant displacement effect of *Spotify* use on digital music sales, more specifically, 137 *Spotify* streams reduce track sales by one unit. The results also show that *Spotify* displaces music piracy, concluding then that streaming appears to be revenue-neutral for the recorded music industry.

Aguiar (2015) relies on clickstream data for a sample of 5000 French internet users and exploit the introduction of a listening cap by the French music streaming platform *Deezer*, to identify the causal effect of free streaming on digital music purchasing behaviour. He finds that free streaming services stimulate alternative channels of music consumption that offer mobility, as it stimulates visits to digital music purchasing websites, indicating that music streaming serves as an information channel for the discovery of new products. Also using clickstream data, Aguiar & Martens (2016) analyse the consumption behaviour of over 16,500 Europeans to study how licensed online music streaming affects digital music purchasing behaviour. Whilst their results show no evidence of digital music sales displacement by unlicensed downloading, they find a positive relationship between the use of licensed streaming platforms and licensed websites selling digital music, meaning that music streaming has a stimulating effect on digital music sales.

The effects of illegal downloading on music purchases may, therefore, vary according to the different licensed digital music consumption alternatives offered to consumers. On that note, it is crucial to understand the consumption behaviour of individuals in the digital era.

2.3 Consumer Behaviour

The advances in technology have forced firms to increase their competitiveness, focusing especially on consumer understanding of value offerings (Casadesus-Masanell & Ricart, 2011). Therefore, consumers' behaviour and consumption patterns have increasingly become a pertinent topic for brand to take into consideration (Myrthianos et al., 2016). Although most consumers have rightful behaviours towards brands and organizations, some act in ways that may hurt said organizations. Digital piracy has had a negative impact of the growth and development of the music industry, and in an effort to decrease these behaviours, researchers from numerous fields such as business ethics, marketing and information systems, have studied digital piracy (Yoon, 2012).

2.3.1 Consumer Behaviour in Piracy

Regarding consumer behaviour in piracy acts, there are two conventional approaches by researchers. Firstly, illegal online music consumption is seen as a planned behaviour, in which the act of engaging in piracy is a preceded by an intent. Therefore, in a conjoint effort to decrease digital piracy, researchers from different fields such as business ethics, marketing and information systems have developed various models to explain digital piracy behaviour and intention to commit digital piracy (Yoon, 2011). Most models were based on diverse behavioural theories, such as the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), the Theory of Planned Behaviour (TPB) (Ajzen, 1991), and the Theory of Interpersonal Behaviour (TIB) (Triandis, 1979); and usually include ethics theories, such as the general theory of marketing ethics (Hunt & Vitell, 1986).

Fishbein and Azjen's TRA (firstly introduced in 1975) is one of the most well-known and validated frameworks on consumer behavior, and it assumes that behaviour is directly linked to intention. It is based upon the premise that human behaviour is determined by their attitudes toward a behaviour (favourable ou unfavourable) and subjective norms (their perception of what others will think of their behaviour).

The TPB (Ajzen, 1991) is an extension of the TRA and includes a third element to the framework, Perceived Behavioural Control (PBC), which influences intention. PBC reflects a person's perception of the ease (or difficulty) of implementing said behaviour. The attitudinal construct of the TRA is idyllic for understanding individuals' attitudes towards music piracy, along with the extent to which those attitudes lead to intentions to engage in music piracy behaviour. The subjective social norms construct is important to understand how individuals' perceptions of others in regards to music

piracy, and how those views might affect the intention to illegally download music (Morton & Koufteros, 2008). Attitude toward a behaviour refers to the "degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question" (Ajzen, 1991, p.188). The subjective norms refer to "the perceived social pressure to perform or not to perform the behaviour" (Ajzen, 1991, p. 188). Lastly, perceived behavioural control refers to "the perceived ease or difficulty or performing the behaviour and it is assumed to reflect past experiences as well as anticipated impediments and obstacles" (Ajzen, 1991, p. 188). The TPB theorizes that the attitudes, subjective norms and perceived behavioural control determine an individual's behavioural intentions, serving as a suitable tool to study the individual's perceptions of subjective norms and attitudes toward music piracy, but also how those variables influence their intention to engage in music piracy (Morton & Koufteros, 2008).

Both the TRA and the TPB have been employed in a digital piracy context (e.g. Chang, 1998; Cronan & Al-Rafee, 2008; Peace, Galletta, & Thong, 2003). Peace et al. (2003) added to the TPB, variables such as punishment severity, software cost and punishment certainty, which influence the TPB variables in the context of software piracy. Their results showed that these added variables also help predict piracy behaviour. Morton & Koufteros (2008) proposed that the attitude toward piracy, subjective norms and perceived level of control in individuals influenced the intention to pirate. Cronan & Al-Rafee (2008) use the TPB and variables such as Past piracy behaviour and moral judgement to determine the influence on intention to commit digital piracy. The results show that past piracy behaviour was the strongest predictor of intention, however, moral obligation was also a strong predictor, with individuals' low in moral obligation being more likely to engage in digital piracy.

Researchers often regard digital piracy as an unethical behaviour, thus employing ethical decision-making models into their research, or incorporating ethical factors. The most frequently used model, as stated above, is Hunt and Vitell's (1986) ethical decision making model, a general theory of marketing ethics that focuses on an individual's reasoning process. It states that ethical judgements are determined by deontological (universal rules guide what is right and wrong) and teleological (right or wrong is based on the consequences) evaluations. The model suggests that the ethical decision-making process starts with the individual's perceptions of the ethical problem, followed by the judgement of the possible alternatives that might be used to solve said problem. These ethical judgements are determined by deontological and teleological evaluations. The model also postulates that the ethical judgements affect an individual's behaviour through moral intention.

Several digital piracy studies use this theory as a theoretical background (Gopal & Sanders, 1998; Shang, Chen, & Chen, 2008; Thong & Yap, 1998). According to Hunt and Vitell's model, ethical

judgement influences behaviour through behavioural intention (hence the link to TRA and TPB), and evaluates the actual consequences following said behaviour, incorporating the learning process into the model as personal experiences. These personal experiences, along with norms, influence future judgements, suggesting that this model is a useful complement to the TRA research of attitudes and social norms (Robertson et al., 2012). Thong & Yap (1998) use this ethical decision-making model to study software piracy behaviour, finding that its applicability is suitable in the context of Information Systems (IS) theory. Gopal & Sanders (1998) developed a model that included the core factors of the ethical decision-making theory, to study the impact of anti-piracy measures on publisher profit. In their research, Shang et al. (2008) used Hunt & Vittel's ethical model to understand how and what motivates individuals to share music files on file-sharing platforms. Yoon (2011) proposed a model that integrated ethics theory into the TPB. The research concluded that variables such as moral obligation, justice, perceived benefit, perceived risk, and habit influenced the TPB variables; which, in their turn, influenced the individual's intention to engage in music piracy.

Huang (2005), using an alternative ethical decision-making model, looks over the music piracy behaviour from the perspective of moral judgement (which includes the perceived egregiousness of record companies as a moral justification for music piracy behaviour; and consumers' moral judgement in regards of the fairness of piracy behaviour); expertise; and social networking. The results showed that consumers' perceptions of record labels influence their moral judgement, which in its turn, does not influence the file-sharing intensity. Rather, the influence on the intensity is through the expertise on music file sharing.

The second approach in linked to economic reasoning in consumer behaviour. From an economic standpoint, if piracy behaviour is theorized as a utility maximizing behaviour, individuals will choose between an illegal behaviour that yields the positive outcome of consuming music at no cost but carries the risk of punishment, or a legal behaviour that carries a lower consumer surplus but no punishment (Gopal et al., 2004); i.e. consumers compare the utility from legally acquiring music and the utility from illegally obtaining music (and its perceived consequences) (Koh et al., 2014).

The fact is that, due to the digitalization of music and the dissemination and banalization of file-sharing platforms, consumers' assessments of music's worth has significantly lowered, rendering into a willingness to pay for most music that is lower than its retail price.

In this approach, researchers usually study the willingness to pay (WTP) for music (Chiang & Assane, 2009; Sinha & Mandel, 2008). Previous research suggests that consumers form preconceived

notions of the price of products, and if they add the content available for free through file-sharing platforms into the equation, their price notions will be close to zero (Papies et al., 2011).

Sinha & Mandel (2008) propose that a consumer's decision to whether engage in piracy or pay for the music (and how much to pay for it), depends on three key factors: negative incentives (for instances, the perceived risks associated with being caught), positive incentives (improved functionality) and consumer characteristics. They suggest that a construct of piracy potential is the WTP for a legal song; all music pirates are unwilling to pay for music, but not all the consumers with a WTP lower than the retail price can be considered pirates. Relating the WTP for legal music to the negative incentives (i.e. the perceived risks of music piracy, like the risk of getting caught and the consequential punishment), they propose that if an individual with zero WTP for music believes that he's likely to get caught, the average WTP is expected to increase. Their results show that negative incentives are a strong deterrent for music piracy, and generally, a low willingness to pay for legal downloads relates to a higher likelihood of engaging in music piracy.

However, this relation between willingness to pay (WTP) and music piracy is not deterministic (Weijters, Goedertier, & Verstreken, 2014). There are also other factors that need to be considered, for instances, it is possible for a consumer with low WTP to not engage in music piracy due to ethical reasons; and a person with high WTP to do so, for example, to sample the music (Gopal, Bhattacharjee, & Sanders, 2006). Previous research regarding music piracy has explored the impact of ethics in the behavioural intention to pirate, suggesting that stronger ethical values and concerns regarding piracy have a negative effect on pirating behaviours (Cesareo & Pastore, 2014; Coyle et al., 2009; Cronan & Al-Rafee, 2008; Levin et al., 2004; Yoon, 2011; Wang, Yeh, & Liao, 2013).

Besides the ethical considerations, other utilitarian reasons have been linked to influence music piracy, including perceived quality (Plowman & Goode, 2009) and the perceived risk related to the legal implications of illegal downloading (Chiou et al., 2005). A vast number of studies (e.g. Chiou et al., 2005; Peace et al., 2003; Yoon,2011) have demonstrated that the perceived risk of getting caught and the perceived punishment severity are likely to influence behaviour through attitude towards the behaviour (Morton & Koufteros, 2008). However, this relationship differs for men and women; Chiang & Assane (2008) found that women are more likely than men to be influenced by perceived risk. As stated above, Sinha & Mandel (2008) showed that perceived risk is also associated with WTP.

These two different approaches to piracy behaviour come together with preposition that "...both intention to piracy and the willingness to pay for music are driven by the value that consumers attach to music platform attributes" (Weijters et al., 2014, p. 538).

2.3.2 Consumer Behaviour in Music Streaming Services

Regarding consumer behaviour in streaming services, studies tend to measure a consumer's intention/ willingness to try a Music streaming service (also referred as Music as a Service, MaaS). With the digitalization of music, and the subsequent consequences followed by the adoption of piracy behaviour by consumers, it has become imperative for the industry to adapt to this reality and develop new legal alternatives of music consumption. Therefore, through the servitization of music, researchers have focused on studying how to get people to start adopting these legal music services. However, throughout the years, music services in general have suffered an evolutionary process, being shaped into the legitimate digital music services we have today, which causes a continuous demand for more up-to-date research regarding consumers' adoption of MaaS.

There have been several theoretical models used to study the adoption of music services. Researchers, in order to study the adoption behaviour, have categorized these services as information systems (IS), thus using IS adoption methods. The most widely used models in the context of IS have been the Theory of Planned Behaviour (TPB) (Ajzen, 1991), the Technology Acceptance Model (TAM) (Davis, 1989), and the Unified Theory of Acceptance and Use of Technology (UTAUT and UTAUT2) (Venkatesh et al., 2003; 2012).

In the context of music streaming services, the TRA and the TPB have been used on several occasions. Cesareo & Pastore (2014) used the TRA as theoretical basis for an attitude-intention model that combined economic benefits, hedonic benefits and moral judgement to explain the attitude toward online music piracy; in its turn, the attitude was theorized to influence consumers' willingness to try a subscription-based music service. They also added variables considered pertinent in explaining consumers' decision-making processes, such as music involvement and consumers' relationships with music (if they're passionate, interested and avid listeners), and how they exert influence on the willingness to try the subscription-based music service.

Dörr et al. (2013) used the TPB as a basis to explain consumers' intention to use paid streaming services (MaaS, as they put it). Firstly, they theorized that attitude toward MaaS, subjective norms and perceived behavioural control all positively influence intention to use MaaS. As antecedents of the attitude toward MaaS, distinctive features of MaaS were used: Submission of music recommendations, search for music recommendations, desire to own and flat rate preference. As a further determinant of attitude, they composed a construct named relative advantage of MaaS, that includes elements that are relatively advantageous compared to the illegal options for music (i.e. sound quality, search costs, law-abiding actions and moral scruples). The results showed that the attitude

toward MaaS is positively influenced by the receival of music recommendations, the payment type and the relative advantages of MaaS. Wagner & Hess (2013) also use the TPB to study whether and why consumers are willing to pay for the premium version of a service even though a free version is available. They found that the intention to use free streaming services is the strongest negative influence on the intention to use the premium version of the service. In addition to intentions, attitude has the strongest impact on user' WTP for the premium version, followed by subjective norms. The attitude towards the premium version is determined by three variables: price value (which is the strongest predictor of users' attitudes), innovativeness and user' tangibility preference.

The Technology Acceptance Model (TAM) by Davis (1989) added two new constructs: perceived usefulness and perceived ease of use, which are seen as good predictors of the intention to use a technology. Perceived usefulness refers to the extent to which an individual is certain that the adoption of the technology will be helpful in performing a task compared to the performance without said technology (Davis, 1989). Perceived ease of use refers to the effortlessness of using the technology, which is an important variable since an individual, despite their perceptions of usefulness of a technology, might not adopt it if its usage is too demanding. This model has been used in the context of music services adoption (e.g. Kwong & Park, 2008).

Others have used conjoint analysis to identify the most important attributes that influence consumers' willingness to pay for MaaS. Papies et al., (2011) used this method with attributes such as price, advertising, digital rights management (DRM), and catalogue size, to understand consumer preferences and their willingness to pay for an ad-based free download model. They show that the industry players would benefit from adding free, advertising-based outlets to their distribution chains because they attract consumers rather than cannibalizing incumbent business models.

However, most recent research using conjoint analysis focus on streaming rather than downloading. Doerr et al. (2011) derived utilities from eight different attributes, and the willingness to pay for each. Their objective was to examine the importance of the different attributes of premium offers, and which were the preferred ones and the WTP for each different attribute. Results show that price is the most important attribute, followed by contract duration and music quality, and that there is a high WTP for overcoming the insufficient mobile data coverage. Weijters et al. (2014) used conjoint analysis to examine music consumption preferences, using eight different attributes (which include: delivery mode (streaming or downloading); business model; audio quality) and controlling results for age. The conceptual framework comprises of three different panels: panel A, which shows the platform attributes; panel B, which shows how the platform attributes affect preferences for music platforms and

lead to the consumption choice; panel C provides the interactions with the selected music platform, i.e. the intention, behaviour and WTP. Their results show that all consumers prefer legal and ethical ways of consuming music, while making them economically viable, meaning that young consumers are more prone to advertisements, and older consumers are more often willing to pay for advertising-free platforms. They also find that, of the eight attributes, quality, business model, legality, ethicality and delivery mode make up for 95% of the total importance.

Finally, Kim, Nam & Ryu (2017) use conjoint analysis, not only to measure the importance of each attribute, but also to estimate consumers' MWTP (Marginal willingness to pay) for streaming services, for the US and Korean markets. The attributes chosen were advertisement, streaming mode, exclusive content and offline usage, and they found that consumers from the different markets have different attribute preferences. For instances, the MWTP not only shows consumers' preferences among attributes, but also provide insights on optimal bundling of attributes, which is important for streaming services to provide business models that are more attractive to consumers. They also provide meaningful insights on which streaming models would thrive in each market based on consumer preferences.

Weijters & Goedertier (2016) use a latent class analysis of multiple music platforms usage from the consumers' perspectives, in which they face the decision of choosing between multiple music platform options, to understand the music consumption behaviours. For some consumers, online music piracy might be their sole mode of music consumption, while for others it may be a complementary mode for music streaming, for example. To explain consumers' combined use of music platforms, Weijters & Goedertier (2016) use variables such as music involvement, price consciousness, internet experience, and demographic variables, such as gender and age. They divided the respondents into four distinct segments: the all-round users (use most or all acquisition modes, but at a low frequency); traditionalists (typically only buy CDs); streamers-downloaders (use especially streaming and downloading); and light-users (use multiple platforms, but less frequently). The results showed that the segment of streamers-sharers (the segment that has the higher number if men, young people and students) are the most involved with music and avid streamers and downloaders. Overall, they provide managerial insights for each segment, as well as for other copyrighted content industries.

In a study that combines both piracy factors and streaming services, Borja & Dieringer (2016) examine what factors lead to consumers' decision to download music illegally, and whether music streaming acts as a substitute or complements music piracy. Using a logit model, they find that music streaming increases the likelihood of engaging in music piracy by 11%, thus providing evidence of this

complementary feature. They also found that variables used in most piracy behaviour studies, such as social and peer behaviour, risk perceptions, online activity and the perceptions on artists and the music industry all contribute to piracy behaviour.

In the next section, the conceptual framework used in this research will be presented, and it will provide deeper insights regarding some of the topics already approached in the literature review, such as the consumer behaviour theory in piracy and in streaming services.

3. THEORETICAL FRAMEWORK

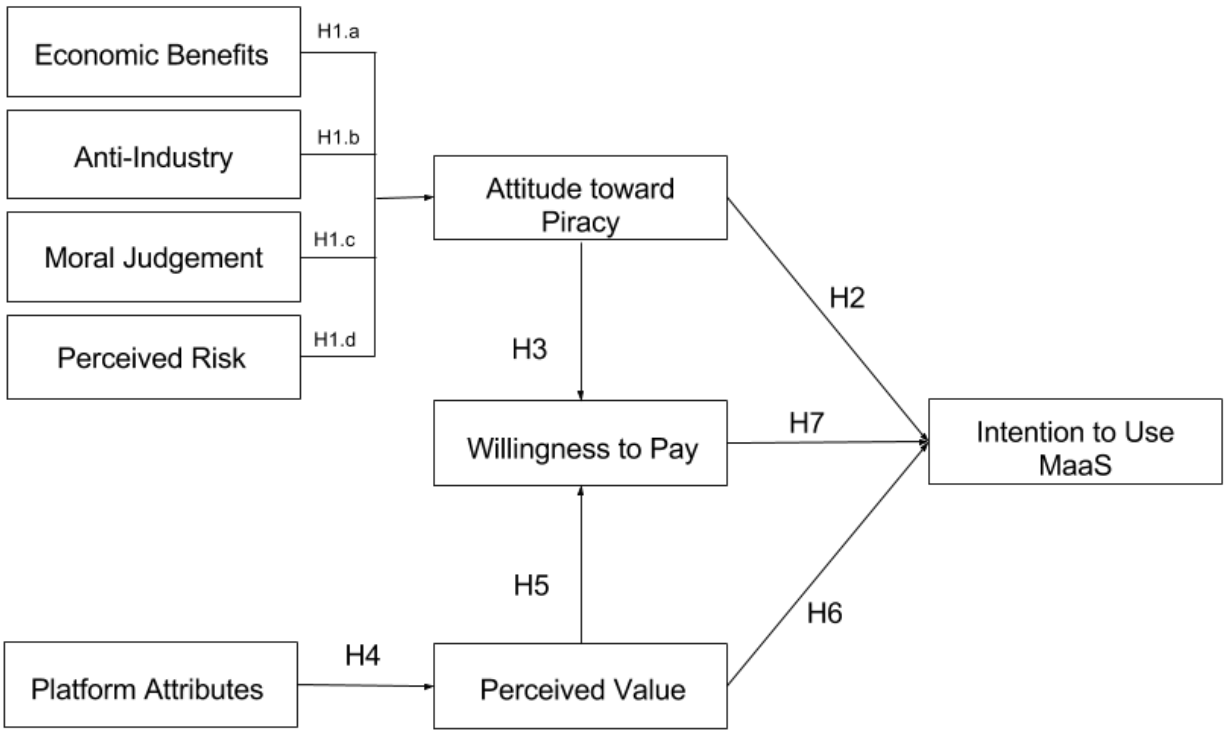
3.1 Research Model and Hypotheses Development

Research regarding music streaming services has emerged with due to the proliferation and growing importance of these business models. Music streaming services have similar features than music piracy, which could cause consumers to perceive music streaming as an alternative to piracy (Borja & Dieringer, 2016). Some studies use the attitude towards music piracy as a variable in explaining consumers' intention towards using MaaS (Cesareo & Pastore, 2014; Wang, Yeh & Liao, 2013) or piracy-related variables (Borja & Dieringer, 2016; Dörr et al, 2013; Weijters et al, 2014).

A conceptual model was developed to explain consumers' intentions to use the paid version of a streaming service.

Combining economic benefits, anti-industry perceptions, moral judgement and the perceived risk as antecedents to attitude toward piracy; eight different streaming platform attributes to measure the perceived value of the paid version of a streaming service; and said attitude and perceived value, in their turn, is hypothesized to influence a consumer's willingness to pay for said service and their intention to use said service. Figure 1 features the conceptual model.

Figure 1: Conceptual Model



3.1.1 Economic Benefits

Gopal et al. (2004) explain piracy behaviour as a utility maximizing function, in which individuals have the possibility to choose between two different behaviours: an illegal behaviour that yields a positive consumer surplus but carries the risk of legal prosecution, or a legal one with lower consumer surplus but no legal risk whatsoever. The higher music costs are, the more likely a person will engage in piracy behaviour. As stated above, the studies that focus on consumers' willingness to pay for music (Chiang & Assane, 2009; Sinha & Mandel, 2008) suggest that economic benefits are a major variable in explaining attitude toward piracy. With the shift in the global perceived value of music, consumers tend to be willing to pay less for music, validating their incentive to pirate. Weijters et al., (2014) suggest that young people engage in music piracy primarily for economic reasons. This makes economic benefits the most straightforward and easier to explain incentive to engage in music piracy. Supported by this literature, we propose the following hypothesis:

H1.a: *The Economic Benefits associated with online music piracy will positively influence the attitude toward piracy.*

3.1.2 Anti-Industry Perceptions

However, it is known that economic and utilitarian benefits aren't the only motivations to engage in music piracy. Music pirates tend to experience little to no concern regarding the economic struggles of the music industry. Myrthianos et al. (2016) categorize consumers into three different groups regarding their beliefs on property rights legislation. The first group believes copyright protecting regulations are legitimate and act accordingly. The second agrees with the spirit of these legislations, but for economic reasons decide to engage in music piracy. The third group believes that piracy behaviours are legitimate, exhibiting a "Robin Hood tendency". Huang (2005) includes this matter of "perceived egregiousness" as a base of justification for the legitimacy of their pirating actions, which the results strongly support. This refers to a seemingly mistrust of the music industry, and that some consumers display a kind of resistant by downloading music illegally (Garcia-Bardidia, Nau & Rémy, 2011)

Borja & Dieringer (2016) suggest that college students often perceive piracy as a behaviour that does not hurt artists, and that the music industry has been exploiting consumers for years, since consumers used to be "forced" to buy the full-album to have access to the songs they liked, having to

pay for the "poor-quality" songs as well (Coyle et al., 2009; Levin et al., 2004). Given this, we propose the following hypothesis:

H1.b: *Negative perceptions about the music industry will positively influence the attitude toward piracy.*

3.1.3 Moral Judgement

Ethics and morality have been widely regarded as having an important role in predicting an individual's intention or behaviour to pirate.

Previous research has explored the impact of ethics in the behavioural intention to pirate, suggesting that stronger ethical values and concerns regarding piracy relate negatively to pirating behaviours (Cesareo & Pastore, 2014; Coyle et al., 2009; Cronan & Al-Rafee, 2008; Levin et al., 2004; Yoon, 2011; Wang et al., 2013). Consequently, the common assumption is that individuals who illegally download music have less developed moral or ethical standards (Gopal et al., 2004; Levin et al., 2004). In the case of college students, research has shown mixed results. Whilst Gopal et al. (2004) found that consumers with lower ethical scores were associated with higher ratings of sharing music online; and Levin et al. (2004) concluded that college students who admitted to engaging in music piracy had also lower ethical standards than students who had never downloaded music illegally, there are several other studies that show alternative conclusions regarding the effect of moral judgement on online piracy. For example, Chen et al. (2008) found that a consumer's ethical disposition has little effect on the intention to pirate music, only implying that moral judgement may have a moderating effect between the perceived value of using online content and the behavioural intention to purchase content. Robertson et al. (2012), based on the premise that moral judgement can have a direct or indirect effect on behavioural intention, the decision to break the law by illegally downloading music may be driven by the beliefs that downloading is ethical, a lesser ethical concern in general, a willingness of law infringement, or a combination of all three.

In conclusion, stronger beliefs about moral judgement may provide a different perspective to consumers when evaluating music piracy. For instances, Chiou et al. (2005) demonstrated that perceived magnitude of consequences and social consensus have a negative effect on the attitude toward music piracy. Cesareo & Pastore (2014) also find that moral judgement has a negative influence on attitude toward piracy.

Given most literature, it is predicted that Moral Judgement will negatively influence on attitude toward piracy, hence proposing the following hypothesis:

H1c: *Moral Judgement will negatively influence attitude toward piracy.*

3.1.4 Perceived Risk

Music piracy is not only considered an unethical behaviour, but it is also an illegal one. Most consumers acknowledge the fact that music piracy is indeed an illegal behaviour and that there are costs associated with jail or fines (Borja & Dieringer, 2016). Nevertheless, a consumer's choice to engage in a risky behaviour depends on the perceived risk associated with it, which can be the probability of getting caught and the adjacent consequences.

Perceived risk can be regarded as the belief concerning negative consequences, and it has been helpful in explaining digital piracy behaviour (Al-Rafee & Cronan, 2006).

A vast number of studies (e.g. Chiou et al., 2005; Peace et al., 2003; Yoon,2011) have demonstrated that the perceived risk of getting caught and the perceived punishment severity are likely to influence behaviour through attitude towards the behaviour (Morton & Koufteros, 2008). For instances, Chiang & Assane (2009) demonstrate that the perceived risk for getting caught and punished is another utilitarian consideration related to online music piracy, and that relationship between perceived risk and attitude toward piracy differes for men and women, stating that women are less likely to be influenced by such perceptions. Supported by this literature the following hypothesis was formulated:

H1d: *Low perceptions of the risks associated with online music piracy will positively influence attitude toward piracy.*

3.1.5 Attitude Toward Piracy

Attitude is one of the main components of the TRA, and it is considered in the reference literature that attitude is the best predictor of an intention, which in its turn, is the best predictor of behaviour (Cesareo & Pastore, 2014; Cronan & Al-Rafee, 2008; Fishbein & Ajzen, 1975). Azjen (1991, p.188) defines attitude toward a behaviour as "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question".

Yoon (2012) states that attitude towards a certain behaviour is formed by the appraisal of the possible outcomes of said behaviour. The consequences can be segmented into positive and negative,

and therefore it is desirable for companies to try and persuade people into having negative perceptions towards piracy by highlighting the harmful consequences of digital piracy to the industry.

Most research surrounding this topic suggests that attitude is one of the most significant factors that influence behavioural intention (Cronan & Al-Rafee, 2008). In their research, Peace et al., (2003) found that attitude had the strongest effect on intention to pirate software. Cesareo & Pastore (2014) concluded that favourable attitudes towards piracy negatively influence a consumer's intention to use a subscription-based music service.

Therefore, the following hypotheses is proposed:

H2: *A higher attitude toward piracy will negatively influence the Intention to Use the paid version of a streaming service*

On a similar note, the literature described in section 2, regarding the effect of the willingness to pay for legal music on music piracy behaviour, is also relevant in this case. Sinha & Mandel (2008) propose that consumers' WTP for legal music and the decision to engage in piracy behaviour depend on negative incentives such as perceived risk, positive incentives and consumer characteristics. Consumers form *a priori* notions of the price of products, and if contents are available for free through piracy, the price notion is likely to drop (Papies et al., 2011). For these reasons, if a consumer has a positive view on piracy, and thus a positive attitude toward piracy, they're likely to have a low willingness to pay for legal music, and in this case, a streaming service. Hence, the following hypothesis is formulated:

H3: *A higher attitude toward piracy will negatively influence the willingness to pay for the paid version of a streaming service*

3.1.6 Streaming Platform Attributes

The attribute-based theory suggests that each decision-making alternative is constructed from several attributes. The consumer then evaluates each attribute and forms an overall utility, depending on a subjective value of the alternative. After that, the consumer chooses which alternative maximizes the utility (Sirkeci & Magnúsdóttir, 2011).

Currently, there are different business models coexisting, and the internet hosts both streaming platforms and downloading platforms, and this implies the importance of the different features made available, such as music discovery/ recommendations based on taste and social media sharing

features. The attributes chosen were some of the attributes offered by most premium versions of streaming services.

Free: This attribute refers to the service being free, whether it is ad-based or not, meaning users don't pay anything in order to use the service. Weijters et al. (2014) found that the second most important attribute in their research is business model, with free platforms being, unsurprisingly, the most popular. They suggest that consumers of a younger segment are expected to shift from illegal forms of consumption to free, ad-based legal services. This speaks to the fact that young people, especially college students have a preference for platforms that provide access to music without any cost, whether they are the free-tier versions of streaming services or illegal downloads (Weijters & Goedertier, 2016). Previous research also suggest that college students and young people are more prone to engage in music piracy (Dilmperi et al., 2011).

Legal/Illegal: The legal attribute of streaming refers to whether the consumer is susceptible to the legal nature of a platform. Nowadays, consumers no longer face the decision between pirating or not, but instead make trade-offs between multiple attributes and then deciding on which platform to use (Weijters et al, 2014). The ethical weight in this decision is substantial, once previous research has shown that ethical considerations and moral judgement are important deterrents of music piracy (Cesareo & Pastore, 2014; Coyle et al., 2009; Cronan & Al-Rafee, 2008; Levin et al., 2004; Yoon, 2011; Wang et al., 2013). Consumers may also face the choice of helping artists and the industry by using legal platforms, or the opposite. Therefore, this attribute aims to quantify the consumers' preference for legal platforms over illegal ones.

Quality: The perceived quality of digital music may play an important role when choosing a streaming service. Previous research focuses on the comparison between the sound quality of CDs and the quality of downloaded audio files. Audio files are compressed and converted into MP3 files and, throughout this process, the audio bit rate falls, deteriorating sound quality (Bhattacharjee et al., 2003). The standard sound quality of a CD file is 1411 kbps, as in most MP3 files, and the standard sound quality of streaming services is 320 kbps. Therefore, there is a clear decline in sound quality when audio files are compressed. Some older literature state that some individuals might not discern any difference in quality between CDs and digital music, others are more likely to purchase CDs than to download due to this factor (Gopal et al., 2002). While some studies show a negative correlation between sound quality

and intent to download music (Fetscherin & Zaugg, 2004; Gopal et al., 2002), others show that perceived quality of digital music has no effect on the level of audio files being downloaded (Gopal & Sanders, 2003). Plowman & Goode's (2009) findings are consistent with Gopal & Sanders', in which consumers may get accustomed to the reduced quality of online music. In a more recent research, Weijters et al. (2014) state that perceived quality is the most decisive attribute for a consumer's music platform choice. They explain that observed predominance of quality may have several reasons behind it. Some consumers may previously have had bad experiences when downloading files; the compressed format of audio files present in streaming services and downloaded music leads to inferior quality; and individuals' perceived quality might be influenced by a gradable terminology (low, medium, high) of the attribute, emphasizing the salience of the attribute to the users. An important note on evaluating the quality of music files is the equipment used. Most people don't own high quality sound equipment, and if someone used regular €10 headphones, it is likely that they won't see any difference in audio quality. Kim et al. (2017) call for the increasing obsoleteness of sound quality, claiming that due to the improvements of the sound quality in streaming services, it is becoming difficult even for experts to distinguish between regular or high quality streaming without specialized audio equipment, thus sound quality does not significantly affect the user's streaming experience.

Streaming: This attribute refers to streaming music as a way of consumption, meaning that, while streaming music, no audio files are stored on the user's device, not granting the right of use to the consumer (Dörr et al., 2013). Although this attribute is not usually present in music consumption literature, Weijters et al. (2014) include it on their research. They find that the combination of both streaming and downloading is preferred over doing only one of those things, on average, but they are age dependent. According to them, older people have a bigger desire to own music than younger consumers, preferring platforms that offer downloads but not streaming; while on the other hand, the younger segments show an apparent predilection for streaming services. This attribute relates to the different business models available, more specifically music streaming models (whether they are free or paid) and download-to-own (mostly illegally). It aims to quantify the consumers' preference for streaming models when choosing a music service.

Mobile app: This attribute refers to the importance given to whether the music service has a mobile application that allows consumers to access the service. The music industry has advanced quite rapidly thanks to the internet, and music streaming services' popularity has increased with the development of

mobile devices such as smartphones and tablets and increased the availability of subscription services (IFPI, 2016). Consumers value mobility, i.e. being able to listen to music on any device, so that they can experience music wherever they like. This attribute is common to most streaming services, and has been used in the literature as an attribute to measure customer value (Doerr et al., 2010).

Offline Usage: Offline usage refers to whether the service allows to stream music without internet-connection. This attribute is one of the most important perks in the paid versions of streaming services (e.g. Spotify Premium), and it is important to users who are concerned with the overuse of mobile data (Kim et al., 2017). This attribute has also been included in several other studies (Doerr et al., 2010; Kim et al., 2017; Papies et al., 2011; Wagner et al., 2014; Weijters et al., 2014; Wlömert & Eggers, 2016). In Wagner et al.'s (2014) research, they find that for more than 60% of the individuals, the possibility of listening to music without limits was the most important attribute in the premium services, also implying that this attribute suggests a continuous desire of ownership by users.

Social Media: The social media attribute refers to the importance given by consumers to the ability to share and recommend music to their peers via social media. Most streaming services now allow their users to share music videos, songs, or even entire playlists with their friends on platforms such as Facebook. However seemingly important, both Doerr et al. (2010) and Weijters et al. (2014) found that this attribute was the least important to their subjects.

Suggestions: Most streaming services offer their users a complex recommendation system that, based on the music they like or have been listening to, providing them with recommendations to similar artists, playlists or music stations that better fit their preferences. It is a valuable tool for consumers to discover new music. Some services have relied on this attribute to better differentiate their product, creating functions such as *Flow* (by the French streaming service, *Deezer*), which purpose is to deliver a bundle of songs that users are likely to enjoy, based on their musical tastes. Weijters et al. (2014) found that this attribute was the second least important to their subjects.

Given all these different platform attributes, consumers will form an overall perception of value of the music streaming services. Therefore, the following hypothesis is presented:

H4: *The platform attributes appreciation will positively influence the perceived value of the paid version of a Streaming Service.*

3.1.7 Perceived Value of the paid Version of a Streaming Service

This variable sums the individual's perceived value of the paid version of a streaming service.

Currently, music streaming services providers, such as Spotify and Deezer, try to persuade free-users to upgrade their membership into the premium version (Wagner et al., 2013). Although there are almost no differences between the free and premium versions regarding the service's basic functionalities, the premium version offers additional features that are only accessible if the consumers pay the monthly fee (Wagner et al., 2014). Research has shown that the higher the premium version's perceived value, the worse perceptions of the free version (Wagner et al, 2013). This means that the user is more likely to pay for the premium version of a streaming service if the basic service is lacking a lot of features; hence, the better the free version, the worse will be the perceived value of the paid one. Again, consumers are assumed to as economically rational and will pursuit their maximum utility (Wang et al., 2013). Consequently, the following hypothesis is presented:

H5: *A high Perceived Value of the paid version of a streaming service will positively influence the willingness to pay for the paid version of a streaming service.*

The perceived value is a critical factor affecting the behavioural intention to purchase, and it is frequently conceptualized as involving consumers' overall assessment of the perceived quality and sacrifice (Zeithaml, 1988). It is believed that consumers' perceived value is a prerequisite of purchase intention (Wang et al., 2013). Multiple studies have proposed that perceived value has a positive effect on consumer intention to buy (Lu & Hsiao, 2010; Wang et al., 2013; Zeithaml, 1988). Therefore, the following hypotheses is presented:

H6: *The Perceived Value of the paid version of a streaming service will positively influence the intention to use the paid version of a streaming service.*

3.1.8 Willingness to Pay and Intention to Use

The willingness of consumers to pay for products or services usually reflects their purchasing intentions (Li et al., 2012). Hence, it can be considered another way to examine consumers' behavioural intention is to assess their WTP. Since WTP corresponds to the maximum price a buyer is willing to pay for a product, the following hypothesis is formulated:

H7: *The willingness to pay for a paid version of a streaming service will positively influence the intention to use the paid version of a streaming*

3.1.9 Music Affinity and Music Involvement

Product involvement and product knowledge has often been used in prior research as a key determinant of consumer behaviour. Highly involved individuals are expected to consume more music in general, and so they might be more prone to use newer technology (Styvén, 2010). How much music an individual consumes has been proven to be an important predictor of music piracy (Coyle et al, 2009). Weijters & Goedertier (2016) found that people who prefer streaming and downloading are usually more involved with music. Cesareo & Pastore (2014) also found that consumers who are involved with music streaming services are more likely to be willing to use the subscription-based music service.

Kinally et al. (2008) describe music affinity as the level of importance placed on music by consumers, and it has been widely used to study the attitude toward a medium or media. Cesareo & Pastore (2014) hypothesize that consumers who are avid listeners and musically passionate are more likely to be willing to try a subscription-based music service, nevertheless the results showed that it wasn't statistically significant.

3.1.10 Sociodemographic variables: Gender, Age and Income

Demographic variables, such as age, gender and income, are known to be predictors of music piracy (Borja et al., 2015). These variables determine the different consumer segments, and since music is a hedonic product, and therefore, the consumer obtains pleasure or joy through its consumption, the degree of such stimulation is the willingness to purchase (Sinha & Mandel, 2008). Previous research has identified age as a key demographic antecedent of illegal downloading behaviour. Older people tend to pirate less and are more likely to purchase digital music (Sinha & Mandel, 2008;

Weijters et al., 2014). Weijters et al. (2014) found that younger consumers are driven to illegally downloading music mainly due to economic reasons, hence being more drawn to free, ad-based versions of streaming services. Individuals with large disposable incomes are perceived to be more likely to purchase music instead of illegal downloading (Coyle et al., 2009; Gopal & Sanders, 1998; Sinha & Mandel, 2008).

In the context of servitization, previous studies have found that variables such as age negatively affect the servitization process (Sandulli, 2007), suggesting that younger people are more open to new services than older consumers (Parry et al., 2012).

Regarding gender, music piracy research has shown that men are more likely to engage in music piracy than women (Cronan & Al-Rafee), mainly due to their different views on the ethical implications of that behaviour; however, that gender-gap has been closing (Robertson et al., 2012). In the context of music streaming services, most studies haven't found a direct impact of gender on the preference for streaming services. Weijters & Goedertier (2016) identified that users who prefer streaming and downloading were the segment with most young people, men and students.

Table 1 summarizes all the hypothesis presented in the conceptual framework.

Table 1: Research Hypotheses

Hypotheses:
H1 a: The economic benefits associated with online music piracy will positively influence the attitude toward piracy.
H1 b: The negative perceptions about artists and the music industry will positively influence the attitude toward piracy.
H1 c: Moral Judgement will negatively influence the attitude toward piracy.
H1 d: The perceived legal risk will negatively influence the attitude toward piracy.
H2: A higher attitude toward piracy will negatively influence the Intention to Use the paid version of a streaming service.
H3: A higher attitude toward piracy will negatively influence the willingness to pay for the paid version of a streaming service.
H4: The platform attributes appreciation will positively influence the perceived value of the paid version of a Streaming Service.
H5: The Perceived Value of the paid version of a streaming service will positively influence the willingness to pay for the paid version of a streaming service.
H6: The Perceived Value of the paid version of a streaming service will positively influence the intention to use the paid version of a streaming service.
H7: The willingness to pay for a paid version of a streaming service will positively influence the intention to use the paid version of a streaming service.

4. RESEARCH METHODOLOGY

This research aims to understand what motivates young consumers to adopt a paid version of a streaming service. It starts from the following research problem: What factors determine the intention to use paid music streaming services? In particular, the research intends to discover the role of platform attributes (e.g. quality, delivery method, price) in the perceived value of paid streaming services and its influence on the intention to use and willingness to pay for paid music streaming services, also adding the attitude toward online music piracy as a predictor. To reach its main purpose, the research suggests a different approach to this topic, combining the already extensively researched music piracy consumption behavioural models and attribute-based models to measure consumers' intention to use the paid version of a streaming service and their willingness to pay for such service.

The literature review has provided a broad insight on what has been studied so far. It was divided into three distinct subjects: the first approached topic was music piracy and its long-lasting effect on sales and the music industry; secondly, the servitization of the music industry and the emergence of new business models, and how they now affect the industry; and lastly, the consumer behaviour in music piracy and in streaming services.

Given the causal objectives of this research, as well as the hypotheses that are going to be tested, the methodology will be of a quantitative nature. Quantitative research is characterized by the employment of experimental methods and quantitative measures to test hypothetical generalizations (Hoepfl, 1997), emphasizing the causal relationships between variables. Golafshani (2003) enumerates four characteristics that depict this paradigm: firstly, the emphasis is set on facts and causes of behaviour; the data is numerical, hence can be quantified and summarized; statistical and mathematical processes are the norm for analysing the data; and the results are therefore translated in statistical terminologies.

The epistemological positioning adopted in this research can be defined as critical realism. Hunt (1990) views critical realism as in all knowledge claims must be critically evaluated and tested to determine if they do, or do not, represent or correspond to that world. Critical realism interrelates ontology and epistemology, since it posits a realist ontology (in which the existence of a world independent of researchers' knowledge); and hold a fallibilistic epistemology (in which researchers' knowledge of the world is socially made) (Miller & Tsang, 2011). The conjunction of these two fuels the need for critically evaluating theories, since the existence of an external reality requires that knowledge claims can be challenged and their merits evaluated in a logical and empirical manner (Miller & Tsang,

2011). It is used in this research since, despite statistical measures and probabilistic approach being enforced, the results as susceptible to refutation.

On this note, quantitative methods of gathering data were used, specifically the online questionnaire. Regarding the ethical implications of the research and the rights of the respondents, the respondents of the survey were informed of the purpose of the study, the volunteering nature of their participation, and were guaranteed total anonymity and confidentiality of the data.

Furthermore, the previous section presented the formulated conceptual model and the proceeded with the theory behind the hypotheses.

Table 2: Research Goals and Research Hypotheses

Research Goals:	**Hypotheses:**
Understanding how the perceived economic benefits, the anti-industry perceptions, moral judgement and the perceived risk of engaging in music piracy behaviour will influence the attitude toward music piracy.	H1.a: The economic benefits associated with online music piracy will positively influence the attitude toward piracy H1.b: The negative perceptions about artists and the music industry will positively influence the attitude toward piracy H1.c: Moral Judgement will negatively influence the attitude toward piracy H1.d: The perceived risk will negatively influence the attitude toward piracy
Determining the direct impact of the consumers' attitude toward piracy on the intention to use the premium version of a streaming service and on their willingness to pay for the service.	H2: A higher attitude toward piracy will negatively influence the Intention to Use the paid version of a streaming service H3: A higher attitude toward piracy will negatively influence the willingness to pay for the paid version of a streaming service
Examine which attributes are preferred and how they affect the consumer's perceived value of premium services.	H4: The platform attributes appreciation will positively influence the perceived value of the paid version of a Streaming Service
Understand to what extent the consumer's perceived value of the premium version of a service will influence their willingness to use it; as well as determining the weight of the perceived value of the premium service on the intention to use said service.	H5: The Perceived Value of the paid version of a streaming service will positively influence the willingness to pay for the paid version of a streaming service H6: The Perceived Value of the paid version of a streaming service will positively influence the intention to use the paid version of a streaming service H7: The willingness to pay for a paid version of a streaming service will positively influence the intention to use the paid version of a streaming service.

The analysis was intended to use the best methods to objectively and effectively analyse the nature of the phenomenon in analysis.

The following sections will provide further insights regarding the chosen methods to collect and analyse data.

4.1 Sample and Data Collection

To test the conceptual model, an online questionnaire was developed. McDaniel & Gates (2013) (p. 224) define the questionnaire as "...a set of questions designed to generate the data necessary to accomplish the objectives of a research project". This choice of method of gathering primary data has multiple advantages, such as rapid dissemination, reduced costs, high response rates, and the ability to contact the hard to reach; and some disadvantages, such as the risk of unrestricted internet samples and the fact that surveys must necessarily be short (McDaniel & Gates, 2013).

A nonprobability sampling method was used, specifically convenience sampling. Convenience sampling is a type of sampling in which the probability of a certain individual be a part of the sample isn't the same as the rest of the individuals. Convenience sampling is a type of non-probabilistic sampling which can be problematic due to the lack of representation of the general population (Maroco, 2007). It was chosen due to the ease of access to respondents and time constrictions. A university sample was selected for this research for various reasons. Firstly, they are the best representatives of the digital era's new music consumers (Huang, 2005). Secondly, music downloading is prevalent among university students (Levin, 2004; Lysonski & Durvalla, 2008). Universities comprise of unique environments that combine social groups, the psychology of youths, and economic factors of low disposable income, all of which can positively enhance the perceived benefits of engaging in music piracy behaviour (Sheehan, Tsao, & Yang, 2010). Young people and students are also the ones who are more acquainted with the newer business models, intensively using streaming platforms (Weijters & Goedertier, 2016).

The questionnaire was distributed mainly via Facebook and email to university students, and it was available for two weeks, from February 28th to March 10th, 2017, and was built using Qualtrics.com.

A total of 972 individuals completed the survey. Since the focus of this study is on Portuguese university students, responses belonging to people who are no longer university students were eliminated, as well as students from foreign universities, making a total of 959 valid responses. After a

further analysis of the data, some responses were eliminated due to their outlier nature, remaining with a sample of a total of 924 individuals.

4.2 Measures

To operationalize the constructs, only scales that had already been validated in previous studies were used. Some had already been used in the context of music streaming services, and others were adapted to better suit the context.

The survey consists of 18 questions, divided in four sections. In the first section, a question regarding how often the respondent listens to music, on average, per week, was included; as well as a 7-point Linkert scale to measure consumers' level of involvement and affinity to music. The music involvement construct was measured using a scale taken from Styvén (2010), e.g.: "I have a strong interest in music". The music affinity scale was adapted from Kinnally et al. (2008), e.g.: "I would rather listen to music than do anything else". The second section asks about the respondents' ways of consuming music. Firstly, we ask about the frequency of consumption using each different consumption channel, measured in a 6-point Linkert-type scale of frequencies (1- Never used,..., 6- Very Frequently); the different channels being: (1) Buying CDs at a brick-and-mortar store; (2) Illegally downloading music off the internet; (3) Buying digital music through an online store (e.g. *iTunes*); (4) Listening to music through an audio streaming service (e.g. *Spotify*); (5) Listening to music through a video streaming service (e.g. *Youtube*). Then, using a 7-point Linkert scale, we measure the level of importance of each attribute, when choosing a streaming service, ranging from 1 (Not Important) to 7 (Extremely Important). The attributes are: (1) It's free (even with advertisements); (2) It's legal; (3) High sound quality; (4) Streaming (only being able to stream audio, does not provide ownership to the consumer); (5) Has a mobile app; (6) Allows to listen to music without internet-connection; (7) Social Media; (8) Suggestions based on liked artists. On the next question, it was asked if the respondents had ever bought music on the internet, and if they had, which services had they used. The options of choice were: (1) "I have never bought music online"; (2) *iTunes*; (3) *Google Play*; (4) *Beatport*; (5) *7digital*; (6) Other (with option to write). These services were the most popular ones used in Portugal, according the IFPI's Global Music Report '16. A recurrent "other" response was *Bandcamp*. After that, it was asked how often the respondent had ever used each of the following streaming services. A 6-point Linkert-like frequency scale was used, ranging from 1 (never used it) to 6 (very frequently). The streaming services used were: (1) *Spotify*; (2) *Deezer*; (3) *TIDAL*; (4) *Napster*; (5) *Youtube*; (6) Other (with writing option).

These services were the most popular ones used in Portugal. Following that question, it was asked how much the respondent would be willing to pay for the premium version of a streaming service (e.g. Spotify), in euros. In order to measure the construct of "perceived value/ customer value", a 7-point Linkert scale was used, adapted from Wang et al. (2013), e.g. "Compared to the fee I need to pay, the use of online music services offers value for money". Lastly, using a polar 7-point Linkert scale, ranging from 1 ("I definitely do not intend to use a payed streaming service") to 7 (I definitely intend to use a payed streaming service"), in order to measure the respondents' intention to use a payed streaming service.

The third section of the questionnaire focuses on questions regarding music piracy behaviour and motivations. The first question asks respondents if they had ever downloaded music illegally off the internet and, if so, how often, in the last 30 days, did they engage in such behaviour. The response options were: (1) "I have never downloaded unpaid music off the internet"; (2) "Never, in the last 30 days."; (3) "Once to five times in the last 30 days"; (4) "Six to ten times in the last 30 days"; (5) "More than ten times in the last 30 days". This was based on the survey used in Borja & Dieringer's (2016) paper. Then, 7-point Linkert scales were used, ranging from "Strongly Disagree" (1) to "Strongly Agree" (7). The economic benefits construct was taken from Cesareo & Pastore (2014), which was adapted from Yoo and Lee (2009), e.g. "I use pirated content if I think that original content is too expensive". Anti-Industry Perceptions (e.g. "Record labels get unreasonably high profits") and Moral Judgement (e.g. "Sharing music files is culturally acceptable." constructs were taken from Huang (2005). The Perceived Risk construct was adapted from the survey used by Borja & Dieringer (2016), e.g. "I do not believe there is a high risk of getting caught". Finally, the Attitude toward piracy construct was adapted from Liao & Hsieh (2013), e.g. "There's nothing wrong with pirating music.".

The last section includes sociodemographic variables, such as age, gender, education level (undergraduate, graduate, phd), University, residence, and average indivual net income.

The survey items are listed in Appendix I.

5. RESULTS AND DATA ANALYSIS

5.1 Sample Profile

5.1.1 Demographics

The demographic characteristics used to describe the sample were gender, age, study cycle and average net monthly income, as well as the number of hours of music listened per week, all presented in Table 3.

Table 3: Demographics

Variable	Scale/Categories	Number (n=924)	Percentage (%)
Gender	*Male*	318	34,4%
	Female	606	65,6%
Education Level	*Undergraduate*	444	48,1%
	Graduate	401	43,4%
	Doctorate	76	8,5%
Income	*Less than €100*	263	28,5%
	€100-€250	308	33,3%
	€251-€500	139	15,0%
	€501-€750	86	9,3%
	More than €750	128	13,9%
Age	*18-20*	298	32,3%
	21-25	448	48,5%
	26-30	96	10,4%
	+30	82	8,9%
Listening hours (per week)	*Less than 3h*	76	8,2%
	3h to 10h	350	37,9%
	11h to 20h	242	26,2%
	More than 20h	256	27,7%

As expected, the majority of the respondents are in their 20s, though the age range of this sample is from 18 to 61 years old. There is a slight overrepresentation of gender, since only 34,4% are males, and 65,6% are females. About 773 individuals study at the University of Minho (83,7% of the sample), and most of the remaining respondents study at nearby universities (e.g. University of Porto). Regarding which study programme the respondents are enrolled in, undergraduate students make about 48,1% of the sample, graduate students 43,4% and doctorate students 8,5%. Average net monthly income is quite surprisingly evenly distributed, with 28,5% of respondents whose income is less than 100 euros, 33,3% with income between 100 and 250 euros, 15,0% with income between 251 and 500 euros and 23,2% with income above the 500 euros. As expected, university students are avid music consumers, with only 9% of the respondents listen to less than 3 hours of music per week.

5.1.2 Consumption Profiles

Based on the different ways of music consumption inquired on the survey, Table 3 distinguishes three categories, buying (physical and digital music), streaming (audio and video) and downloading, and how consumers engage on each of these modes, profiling for weekly music listening hours.

Table 4: Consumption Modes by average weekly hours of music.

Music Consumption			< 3 hours	3h-10h	11h-20h	>20h	Total (n=924)
Buying	*Physical*	No	52	212	127	123	514
		Yes	24	138	115	133	410
	Digital	No	66	290	187	202	745
		Yes	10	60	55	54	179
Streaming	*Audio*	No	26	63	22	34	145
		Yes	50	287	220	222	779
	Video	No	2	3	0	1	6
		Yes	74	347	242	255	918
Downloading	—	No	57	224	132	143	556
		Yes	19	126	110	113	368

As it's expected respondents are mainly streamers and downloaders, and the ones who do buy music (whether it's digital or in the physical format), most only do so very sporadically (once every six

months, or less). Streaming is the preferred mode of consumption. The audio streaming category comprises of most streaming services (e.g. *Spotify*), and it is massively used by the respondents, except the ones who listen to less than 3 hours of music per week (only 65,8% stream audio, comparing to the ones who listen to music more often, 86,6% stream audio). When asked about which streaming services they use the most, *Spotify* quickly stands out as the most popular service (used by 84,1%), followed by *MEO Music* (Portuguese streaming service, used by 20,7% of the respondents), and *Deezer* (only 6,8% use this service, and most use it on occasion). The video streaming category comprises of streaming services who stream music videos (e.g. *Youtube*), which is the preferred way of consuming music of the sample (99,3% are video streamers), and *Youtube* is the most popular streaming service in the world, as well as in this sample (98,4% of the respondents use *Youtube* to listen to music). While only 1,9% don't stream music at all, 70,8% combine both audio and video streaming.

Downloading music off the internet comes next to steaming in popularity, and it is evenly distributed in the weekly listening-hours spectrum. About 83,2% of the respondents have engaged in this activity, and 40% have done so in the last 30 days. Gender-wise, both men and women evenly practice online music piracy, with 41,5% of men and 38,9% of women being avid downloaders. The younger segment are the ones that download the most, with 50% of respondents with age between 18 and 20 and 37% of the respondents with ages between 21 and 25 engage in music piracy frequently.

Clearly, consumers combine both streaming and downloading on their music consumption habits, and while streaming is the preferred method, downloading is still a very popular.

5.2 Scales Reliability

Reliability is a valuation of the degree of consistency between multiple dimensions of a variable (Hair et al., 2010). The most common measure of reliability is internal consistency, and it's applied to the consistency among the variables in a scale, in which the items of the scale should all be measuring the same construct (Hair et al., 2010). In order to assess the scales reliability, the reliability coefficient Cronbach's alpha was used. Table 5 shows the Cronbach's alpha for each scale used.

Table 5: Constructs reliability and Cronbach's alpha

Construct	Cronbach's alpha:	Items:
Music Involvement (source: Styvén et al, 2010)	0,912*	I have a strong interest in music I value music as an important part of my current lifestyle A lot can be said about a person from the music they listen to*
Music affinity (Source: Kinnaly et al,2010)	0,866	I would rather listen to music than do anything else I could easily do without listening to music for several days Listening to music is one of the most important things I do each day
Perceived Value (Source: Wang et al, 2013)	0,778	Compared to the fee I need to pay, the use of online music services offers value for money Compared to the effort I need to put in, the use of online music services is beneficial to me Compared to the time I need to spend, the use of online music services is worthwhile to me Overall, the use of online music services delivers me good value
Economic Benefits (Source: Yoo and Lee, 2009)	0,632	I use pirated content if I think that original content is too expensive I use pirated content if I cannot afford to buy original content
Anti-industy perceptions (Source: Huang, 2005)	0,784	Record labels protect their copyrights so as to exploit consumers Record labels get unreasonably high profits
Moral judgement (Source: Huang, 2005)	0,442	Sharing music files is fair. Sharing music files is culturally acceptable.
Perceived Risk (Source: Borja and Dieringer, 2016)	0,630	I do not believe there is a high risk of getting caught I do not believe the consequences are very severe if I do get caught
Attitude toward piracy (Source: Liao and Hsieh, 2013)	0,824	There's nothing wrong with purchasing counterfeit goods I consider that buying counterfeit goods is great idea

*If item deleted

Most constructs show a value above the acceptable value of 0,7; whilst between 0,6 and 0,7 is questionable, and the value of moral judgement. Since this scale only has two items, in which they

measure two different natures of Moral Judgement, and given the importance of the constructs, it was decided to keep them.

5.3 Structural Equations Model

Structural Equation Modelling (SEM) is a technique that allows to set relationships between more than one dependent variable, providing the most appropriate and efficient estimation technique for a bundle of separate multiple regression equations estimates simultaneously (Hair et al., 2010). It is characterized by two components: (1) the path model, which relates independent to dependent variables, and help determine whether the independent variables predict the dependent ones; (2) the measurement model, which enables the researcher to use several indicators for a single independent or dependent variable (Hair et al, 2010). SEM is widely used in studies with complex consumer behaviour patterns with multiple variables and interrelationships between variables (Hair et al., 2010).

The first step of SEM is to assess the measurement model validity through a Confirmatory Factorial Analysis (CFA), followed by the evaluation of the hypothesized paths of the causal model.

5.3.1 Confirmatory Factorial Analysis (CFA)

CFA is used to test the theoretical pattern of factor loadings on predetermined constructs, elucidating about how well the theoretical specifications of the factors match reality (Hair et al., 2010). It is applied on the measurement model to test its fitness with the empirical data retrieved from the survey. Hence, it is used to provide a confirmatory test to the measurement theory. The measurement theory specifies how the variables represent the constructs involved, i.e., it specifies a series of relationships that show how the measured variables represent a latent construct that is not measured directly (Hair et al., 2010).

For the Confirmatory Factorial Analysis, the software AMOS 24 was used. Assessing the overall model fitness is an important part of CFA. The model fit indexes are as follows: X^2 = 692,928 (p=0,000); df=4,225; CFI = 0,892; TLI = 0,861; NFI = 0,864; RMSEA = 0,059. Hair et al. (2010) suggest that, in the Comparative Fit Index (CFI), Normed Fit index (NFI) and Tucker-Lewis Index (TLI), values above 0,9 show good fit. The model scores are very close to that value. The Root Mean Square Error of Approximation (RMSEA) is above 0,5, which also shows good model fit.

There are multiple types of validity that can be used when conducting a SEM analysis, mainly content validity and construct validity. Content validity (or face validity) refers to the degree of

correspondence between the items that establish a scale and its conceptual definition (Hair et al., 2010). Since the items used in this study were taken from previous literature, with validated scales, it can be assured the content validity of the variables.

Table 6: Construct Correlation Matrix

	1	2	3	4	5	6	7	8	9
Eco	1								
PR	0,247	1							
MJ	0,414	0,446	1						
AI	0,366	0,287	0,428	1					
ATP	0,342	0,522	0,757	0,434	1				
PV	-0,017	0,255	-0,045	-0,021	-0,050	1			
Att	0,230	-0,070	0,056	0,032	-0,064	0,180	1		
WTP	-0,304	0,150	-0,098	-0,095	-0,210	0,218	1,272	1	
Intent	-0,089	0,306	-0,052	0,088	-0,053	0,091	1,294	2,507	1

On the other hand, construct validity is the extent to which a set of measured items do in fact reflect the construct (Hair et al., 2010). Having evidence of the validity of the constructs provides confidence that the items taken from a sample accurately reflect the population. To assess the measurement model, there must be an evaluation of the different dimensions of construct validity: reliability, convergent validity and discriminant validity. Convergent validity is a measure of how well the items load on their corresponding factors. Discriminant validity, on the other hand, is demonstrated by checking the correlations between the factors, and whether they are significantly different (Hair et al., 2010). Convergent validity is checked by examining the significance of the item loadings on their corresponding factor for each of the scales in the study.

Reliability was assessed using scale composite reliability (SCR). Hair et al. (2010) state that an estimate of 0,7 or higher is deemed acceptable. As shown in Table 7, all constructs showed acceptable reliability, with the exception of Moral Judgement.

Convergent validity is measured by examining the factor loadings and the average variance extracted (AVE). Hair et al. (2010) state that, at the very minimum, the factor loadings should at least be statistically significant, but suggest that the value should be of at least 0,5. Table 7 shows that most

estimates are above 0,5, apart from some of the platform attributes (originally, there were eight attributes, but due to the low loadings, the attribute "social media" was eliminated) and MJ_2.

Table 7: Constructs measurement: confirmatory factor analysis and scale reliability.

Item description	Standardized loadings	Reliability	
		SCR	AVE
Economic Benefits		0.756	0.611
Eco_1	0.784		
Eco_2	0.598		
Perceived Risk		0.723	0.567
PR_1	0.687		
PR_2	0.640		
Moral Judgement		0.588	0.421
MJ_1	0.641		
MJ_2	0.479		
Anti-Industry		0.868	0.768
AI_1	0.848		
AI_2	0.760		
Platform Attributes		0.733	0.290
Free	0.316		
Legal	0.438		
Quality	0.622		
Streaming	0.563		
Mobile_App	0.451		
Offline_use	0.417		
Suggestions	0.413		
Perceived Value		0.844	0.588
PV_1	0.457		
PV_2	0.896		
PV_3	0.681		
PV_4	0.643		
Attitude toward Piracy		0.897	0.814
Atp_1	0.882		
Atp_2	0.796		
WTP	1.000		
Intention	1.000		
Fit statistics for measurement model of 23 indicators for 9 constructs: $\chi^2_{(191)}$ = 755.451; p = 0,000; χ^2/df = 3,955; CFI = 0.900; TLI = 0.867; NFI = 0.872; RMSEA = 0.057.			

The Average Variance Extracted (AVE) are above the level of 0,5, except for Moral Judgement and the Platform Attributes. A low AVE usually indicates that, on average, more error remains in the items

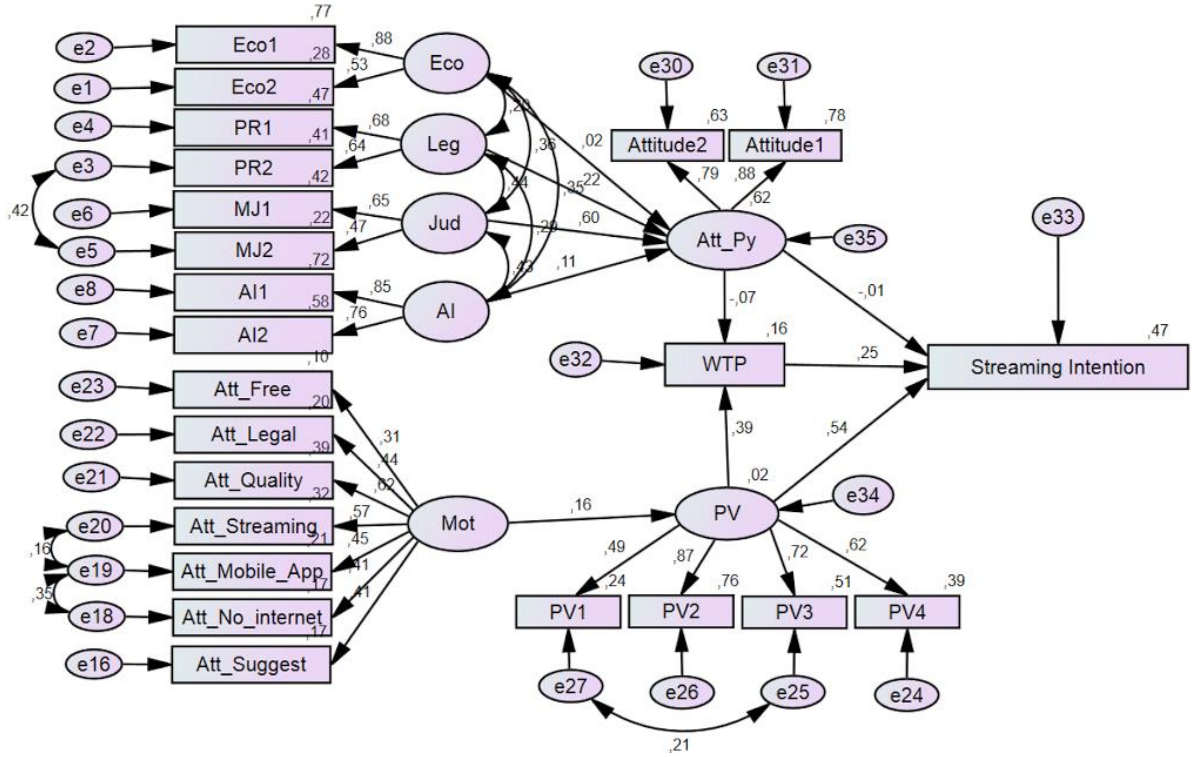
than variance explained by the latent factor structure imposed on the measure (Hair et al., 2010). The decision to keep these constructs on the model was made, even with the implications associated with it, due to their theoretical importance.

To assure discriminant validity, the square root of AVE for each construct should be greater than the correlations between said construct and the rest (Fornell & Larcker, 1981). As shown in Table 6, the correlations between constructs are lower than the square root of AVE, confirming discriminant validity. Thus, the measurement model demonstrated adequate reliability, convergent validity and discriminant validity.

5.3.2 Results from the Structural Equation Model

Table 8 summarizes all the results and Figure 2 illustrates the path model used in this research. In section 3, it is theorized that attitude toward piracy (ATP) is influenced by Economic Benefits, Anti-Industry Perceptions, Moral Judgement and Perceived Risk. The results in Table 8 show that, although these relationships are positive, as predicted, only AI, MJ and PR are statistically significant. Moral Judgement is the variable that has the most influence on ATP, with a β = 0,598. Hence, hypotheses H1b, H1c and H1d are supported, and the hypothesis H1a is rejected.

Figure 2: Path model



Eco=Economic Benefits; Leg=Perceived Risk; Jud= Moral Judgement; AI= Anti-Industry; Mot= Attributes

The attitude toward piracy was hypothesized to negatively influence intention (H2). This hypothesis is unsupported (β= - 0.008, n.s.), since the value of the estimate isn't statistically significant, despite the value being negative (as predicted). These results show that ATP does not influence the consumer's intention to use the paid version of a streaming service.

The model also hypothesized that attitude toward piracy would negatively influence the willingness to pay for the premium service (H3). In this case, the results support the hypothesis (β= -0.074, p < 0,01).

Table 8: Construct structural model**.**

Structural relationships	Hypotheses		Standardized parameter estimates	
	Number	Direction	Estimate	t-value (sig.)
Hypotheses				
ECO → ATP	H1a	positive	0.024	0.532
AI → ATP	H1b	positive	0.106	2.174**
MJ → ATP	H1c	positive	0.598	6.724***
PR → ATP	H1d	positive	0.221	4.073***
ATP → INTENT	H2	negative	-0.008	-0.294
ATP → WTP	H3	negative	-0.074	-2.225**
ATTRIB → PV	H4	positive	0.157	3.365***
PV → WTP	H5	positive	0.394	10.438***
PV → INTENT	H6	positive	0.542	13.964***
WTP → INTENT	H7	positive	0.252	8.859***

Fit statistics for measurement model of 23 indicators for 9 constructs: $\chi^2_{(212)}$ = 921,877; p = 0,000; χ^2/df = 4,348; CFI = 0.874; TLI = 0.850; NFI = 0.843; RMSEA = 0.060.
** p < 0.05
*** p < 0.01

It was also hypothesized that the platform attributes used (Free, Legal, Quality, Streaming, Mobile App, Offline access and Suggestions) would positively influence the Perceived Value of the paid version of a streaming service (H4). The results support this hypothesis (β= 0.157, p < 0,01), although the level of influence isn't very high.

The perceived value was theorized that it would positively influence the willingness to pay for a paid subscription service (H5). The hypothesis is supported (β= 0,394, $p < 0,01$): this means that a consumer's perceived value of the product is an important factor in their willingness to pay for it.

H6 suggests that the perceived value of the paid version of a streaming service has a positive influence on the intention to use said service. This hypothesis is strongly supported (β= 0,542, $p < 0,01$), and is in line with the previous literature that suggests that the perceived value of a product is an important determinant in the intention to purchase.

At last, H7 proposes that willingness to pay for the premium version of a music streaming service will positively influence the intention to use the service. This hypothesis is supported (β= 0,252, $p < 0,01$).

Table 9 summarizes the outcome of the hypotheses.

Table 9: Hypotheses outcome

Hypotheses:	Outcome:
H1a: The economic benefits associated with online music piracy will positively influence the attitude toward piracy	Rejected
H1b: The negative perceptions about artists and the music industry will positively influence the attitude toward piracy	Supported
H1c: Moral Judgement will negatively influence the attitude toward piracy	Supported
H1d: The perceived risk will negatively influence the attitude toward piracy	Supported
H2: A higher attitude toward piracy will negatively influence the Intention to Use the paid version of a streaming service	Rejected
H3: A higher attitude toward piracy will negatively influence the willingness to pay for the paid version of a streaming service	Supported
H4: The platform attributes appreciation will positively influence the perceived value of the paid version of a Streaming Service	Supported
H5: The Perceived Value of the paid version of a streaming service will positively influence the willingness to pay for the paid version of a streaming service	Supported
H6: The Perceived Value of the paid version of a streaming service will positively influence the intention to use the paid version of a streaming service	Supported
H7: The willingness to pay for a paid version of a streaming service will positively influence the intention to use the paid version of a streaming service	Supported

6. Discussion and Conclusions

This research observed college students' ways of consuming music, their platform attributes preferences and their intention to use the paid version of a music streaming service. A Structural Equations Model was used to estimate the relationships between the constructs. This section discusses the results of this study and provides some theoretical and managerial insights.

The results provide many important insights. Firstly, just by a simple overview of the data, they show that consumers are avid streamers, as well as downloaders, combining both ways into their music consumption. Although streaming was created with the intent to deviate consumers from downloading music illegally (Sinha & Mandel, 2008), consumers apparently maximize their utility by bundling these two, instead of just opting for one or the other. Therefore, one of the main constructs of the conceptual model designed was the attitude toward piracy, and how it might influence a consumer's intention to use the paid version of a streaming service. The results show that, of the four constructs used to predict the attitude toward piracy, three of them (Anti-Industry Perceptions, Moral Judgement and Perceived Legal Risk) were significant in explaining said variable, leaving what was thought to be the most explanatory variable (the economic benefits) obsolete in predicting the attitude toward piracy. This goes against most literature in piracy behaviour, that economic benefits are the main inciters of attitude toward piracy and piracy behaviour (Cesareo & Pastore, 2014; Chiang & Assane, 2009). On the other hand, as a result from the technological immersion that most college students have suffered throughout their lives, and since the overwhelming majority of the subjects consume their music digitally, and have been most of their lives, their valuation of music is increasingly lower, since one can obtain vast catalogues of music without payment (whether it is by illegally downloading or through music streaming services). This fact can somehow explain why economic benefits are becoming irrelevant in explaining attitude toward piracy, since obtaining free music can be done easily and legally, without having to incur in illegal behaviour, weakening the reasoning behind this motivation.

The rest of the motivations for piracy are significant, which means that consumers, in this case, college students, generally view music piracy as an unethical behaviour, and both the perceived risks and moral judgement work as deterrents of illegal downloading.

On the other hand, despite the theoretical reasoning behind the hypothesis that attitude toward piracy may have a negative effect on the intention to use the paid version of a streaming service, such is unsupported. Results show no significant relationship between attitude toward piracy and the

intention, which is the main dependent variable that this research was substantiated upon. This opposed the results in Cesareo & Pastore (2014).

Interestingly, attitude toward piracy had a negative effect on willingness to pay. This is likely due to that fact that consumers have a low valuation of music itself, and therefore, the more positive their attitude toward piracy (which behaviour allows them to own and consume music for free), the less likely they are to pay for music, or a music service.

Secondly, regarding the Platform attributes, seven attributes were tested. The subjects considered that, on average, the most important attribute was "free", followed by "quality" and then "streaming". The SEM showed that all attributes are statistically significant and that "quality" was the attribute that most influenced the construct of the overall appreciation of the platform attributes, followed by "streaming". Despite the platform attributes construct being explained by seven different attributes, its relationship with the perceived value, albeit statistically significant, is not very high. This means that the perceived value of the paid version of a streaming service is not highly influences by the selected attributes.

The construct of willingness to pay was added because it offers a more concrete assessment of the true valuation of the paid versions of streaming services. The results show that the perceived value has a positive effect in willingness to pay, as predicted. Logically, the higher the perception of value of a service, the more a person is likely to pay for it.

Lastly, and unsurprisingly, results show that WTP and PV are predictors of the intention to use. Consumers who have a higher monetary valuation of the product are more likely to have a positive intention to use it.

In terms of managerial implications, there are several strategies that could be implemented.

As stated above, consumers combine both piracy and streaming. This may have two possible reasons. Firstly, when someone illegally downloads a music file, they become its owner (albeit illegally). This sense of ownership is common in people with high music involvement and affinity (Kinally et al., 2008) and some enjoy having large collections of music, even if they are digital. When owning these files, a consumer can listen to music on their phone or computer without being connected to the internet, which free versions of streaming services do not allow. Therefore, they might stream music when connected to the internet on a regular basis, and download whichever albums they prefer and put it on their mobile devices, since most people face restrictions in mobile data and don't always have access to Wi-Fi. Other possibility is that consumers may use streaming as a means of sampling music

(as established before, music is an experience good, and one can only know its true value at the time of consumption (Molteni & Ordanini, 2003)) proceeding to download their preferred music.
However, subjects showed that the streaming attribute was the third more important, showing a lack of preference to ownership. In a way, it is good news to the music industry in terms of the battle between piracy and streaming, although it indicates that consumers don't mind streaming as long as it's free.

Consumers already adopted the free basic versions of streaming services, but they don't perceive it as a sampling method for the premium versions as they were intended. This is problematic from the perspective of the music industry, since the revenue stream from streaming services is mainly supported by premium users (IFPI, 2016), and streaming services employing the free ad-based model are struggling with profitability (Kim et al., 2017). Service providers might adopt a new pricing strategy targeting a certain segment of consumers. For example, Spotify recently launched a pricing campaign aimed specifically at students, in which students in over 30 countries can subscribe to Spotify Premium with a 50%-off discount, with maximum duration of 12 months. Earlier this year, the streaming service reached the 50 million paying subscribers mark, and have set their sights on increasing this number rapidly. Hence, consumers with a lower willingness to pay for the premium version have a more enticing price and are likely to subscribe, and throughout the period in which the price is available, their perceived value of the product will increase, and they will form a consumption habit. Subsequently, after the duration of the discount is over, consumers are less likely to go back to the free version.

Consumers' primary tool of music consumption is streaming (Wlömert & Papies, 2016), thus the primary source of utility derived is from the basic features offered by streaming services. Wlömert & Papies (2016) also predict that free streaming services are net negative because they attract many active music buyers, suggesting a decrease in the utility of free-streaming services (e.g. restricting the hours of free music, increasing the amount of advertisement or reducing the amount of free content), to consequentially increase the consumers' perceived value of the paid version of the service.

On the other hand, service providers might also focus on improving their features to add value to the service and differentiate their product from other music streaming services. Increasing music quality, better recommendation systems, better social media features, sharing interviews or exclusive content are some examples of additional perks that could increase the perceived value of consumers.

The matter of exclusive contents is where one could combine both these approaches to attract consumers to use the paid-tier of music streaming services. While at first, rights holders such as the big four recording companies were against streaming services (and have fought a long battle in negotiating

royalty rates); the industry's tides led them to compromise. In the beginning of this month[1], Universal Music Group signed a licensing deal with Spotify, a version of the "Taylor Swift option" (where rights holders withhold music from streaming services during periods of high demand (Aguiar & Waldfogel, 2016), just like Taylor Swift and Adele), in which UMG's artists can choose to release new albums on premium for a duration of two weeks, allowing subscribers to have earlier access to the music; later, they also signed a contract with the Merlin Network[2], which is the biggest digital rights agency in the independent label sector.

This has set the stream that streaming services are here to stay, and that the industry is adapting. However, Youtube is the most popular streaming service among the subjects of this study (as well as the world (IFPI, 2016)), and most people listen to music from it. Some of them are unaware of alternative streaming services, meaning that there is a significant growth potential in users in the free-tier, as well as the paid-tier.

Firstly, streaming service providers should do marketing campaigns for paid services at places where high attendance of music buyers and music lovers, such as live shows, music festivals and record stores.

Secondly, they should also invest in campaigns for people to get to know the service. For example, the results showed a lack of recognition of most streaming services with an exception to *Youtube* and *Spotify*. Brands should make their product known to the public with marketing campaigns through social media and music-related events.

[1] https://www.musicbusinessworldwide.com/spotify-will-window-albums-on-premium-as-universal-finally-inks-new-deal/
[2] https://www.musicbusinessworldwide.com/now-spotify-merlin-sign-new-long-term-licensing-agreement/

7. LIMITATIONS AND FUTURE RESEARCH

As with any research, the findings in this thesis need to be put into perspective by considering the study limitations.

The methodology, whilst being the most appropriate approach for measuring and testing the hypotheses, some of the questions in the survey involved matters of ethical and moral nature that simply cannot be fully measured using a survey. The analysis of the data is the most fitting for this type of research, but it is limiting in the way that it can't fully attain the complexity of the factors that influence the music consumption behaviour itself. Therefore, future research should add a qualitative component to better understand consumers' actual music consumption behaviour and their opinions on the importance of each platform attribute.

There are also some issues with the sample. While the number of respondents is very satisfactory, it is limited in terms of the representation of young people, since it over represents young university students, and it is mainly confined to a single institution. Also, as pointed out in the methodology section, a convenience sampling method was used. Hence, the generalization of the results is not advisable.

Also, study does also not incorporate the entirety of the factors that might determine the consumers' answers, and it only measures the declared intention. The inclusion of a large number of factors would be imprudent and impracticable, due to the dimension and complexity of the survey. Further research could include a different set of factors for predicting consumers' intentions in this context.

Furthermore, the recommendations given in the previous section do not consider the cost of implementing said measures.

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APPENDIX I- SURVEY

1. Quantas horas de música ouve, em média, por semana? (considere todos os meios, como por exemplo, em casa, no trabalho, no carro, no ginásio, etc.)
   - ❍ Menos de 3 horas semanais (1)
   - ❍ Entre 3 a 10 horas semanais (2)
   - ❍ Entre 11 a 20 horas semanais (3)
   - ❍ Mais de 20 horas semanais (4)

2. Exprima, por favor, o seu grau de concordância em relação às seguintes afirmações acerca do seu nível de envolvimento e afinidade com a música.

	1- Discordo totalmente (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7- Concordo totalmente (7)
Tenho um forte interesse em música. (1)	❍	❍	❍	❍	❍	❍	❍
Eu valorizo a música como uma parte importante do meu estilo-de-vida. (2)	❍	❍	❍	❍	❍	❍	❍
Muito pode ser dito acerca de uma pessoa pela música que ela ouve. (3)	❍	❍	❍	❍	❍	❍	❍
Eu prefiro ouvir música do que fazer outra coisa qualquer. (4)	❍	❍	❍	❍	❍	❍	❍
Quando não posso ouvir música, sinto falta de o fazer. (5)	❍	❍	❍	❍	❍	❍	❍
Ouvir música é uma das coisas mais importantes que faço no dia-a-dia. (6)	❍	❍	❍	❍	❍	❍	❍

3. Com que frequência utiliza cada um dos seguintes meios para consumir música?

	Nunca (1)	Muito Raramente (cerca de 1 vez a cada 6 meses ou menos) (2)	Raramente (cerca de 1 vez a cada 3 meses) (3)	Moderadamente (cerca de 1 vez por mês) (4)	Frequentemente (cerca de 1 vez por semana) (5)	Muito Frequentemente (várias vezes por semana) (6)
Compro CDs numa loja (ex. FNAC) (1)	❍	❍	❍	❍	❍	❍
Faço download não pago de música pela internet. (2)	❍	❍	❍	❍	❍	❍
Compro música através de uma loja online (ex. iTunes) (3)	❍	❍	❍	❍	❍	❍
Ouço música através de um serviço de streaming (ex. Spotify) (4)	❍	❍	❍	❍	❍	❍
Ouço música através de um serviço de streaming de videos (ex. Youtube) (5)	❍	❍	❍	❍	❍	❍

4. Quando escolhe um serviço streaming de música (serviço online de música), qual o grau de importância que dá a cada um dos seguintes atributos?

	1- Nada importante (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7- Extremamente importante (7)
A sua utilização é gratuita (mesmo que tenha publicidade). (1)	❍	❍	❍	❍	❍	❍	❍
A sua utilização é legal. (2)	❍	❍	❍	❍	❍	❍	❍
A qualidade do som é elevada. (3)	❍	❍	❍	❍	❍	❍	❍
Permitir ouvir música sempre que quiser, mas sem descarregar (streaming). (4)	❍	❍	❍	❍	❍	❍	❍
Permitir ouvir música através do telemóvel (aplicação móvel). (5)	❍	❍	❍	❍	❍	❍	❍
Permitir ouvir música mesmo sem estar ligado à internet. (6)	❍	❍	❍	❍	❍	❍	❍
Permitir a partilha de música nas redes sociais (ex: facebook). (7)	❍	❍	❍	❍	❍	❍	❍
Sugerir artistas com base no que costuma ouvir. (8)	❍	❍	❍	❍	❍	❍	❍

5. Já comprou música pela internet? Se sim, indique, por favor, as plataformas utilizou. (Assinale todas as opções que se adequam ao seu caso):
   - ❑ Não, nunca comprei. (1)
   - ❑ iTunes (2)
   - ❑ Google Play (3)
   - ❑ Beatport (4)
   - ❑ 7digital (5)
   - ❑ Outro. Qual? (6) _____
   - ❑ Outro. Qual? (7) _____

6. Indique, por favor, a frequência com que utiliza os seguintes serviços de streaming de música.

	Nunca utilizei (1)	Muito Raramente (cerca de 1 vez a cada 6 meses ou menos) (2)	Raramente (cerca de 1 vez a cada 3 meses) (3)	Moderada mente (cerca de 1 vez por mês) (4)	Frequente mente (cerca de 1 vez por semana) (5)	Muito frequente mente (várias vezes por semana) (6)
Spotify (1)	❍	❍	❍	❍	❍	❍
Deezer (2)	❍	❍	❍	❍	❍	❍
TIDAL (3)	❍	❍	❍	❍	❍	❍
Napster (4)	❍	❍	❍	❍	❍	❍
Youtube (5)	❍	❍	❍	❍	❍	❍
MEO Music (6)	❍	❍	❍	❍	❍	❍
Outro. Qual? (7)	❍	❍	❍	❍	❍	❍
Outro. Qual? (8)	❍	❍	❍	❍	❍	❍

7. Quanto estaria disposto a pagar por mês por uma versão premium de streaming (e.g. Spotify Premium)? Indique, por favor, o valor em euros.

8. Exprima, por favor, o seu grau de concordância em relação às seguintes afirmações acerca do valor dos serviços pagos de streaming.

	1- Discordo total mente (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7- Concordo total mente (7)
Os serviços pagos de streaming possuem um excelente nível de qualidade. (1)	❍	❍	❍	❍	❍	❍	❍
Utilizar os serviços pagos de streaming fazem-me sentir bem. (5)	❍	❍	❍	❍	❍	❍	❍
Os serviços pagos de streaming valem o preço que custam. (6)	❍	❍	❍	❍	❍	❍	❍
Utilizar os serviços pagos streaming causa uma boa impressão nas outras pessoas. (7)	❍	❍	❍	❍	❍	❍	❍

9. Exprima, por favor, até que ponto pretende utilizar um serviço pago de streaming.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Eu definitivamente não pretendo utilizar um serviço pago de streaming.:	❍	❍	❍	❍	❍	❍	❍	Eu definitivamente pretendo utilizar um serviço pago de streaming.

10. Alguma vez fez download não pago de música (por exemplo utilizando sites de partilha P2P, Torrents, Conversores, etc)? Se sim, com que frequência o fez nos últimos 30 dias?
    - ❍ Nunca fiz download não pago de música (1)
    - ❍ Nenhuma vez nos últimos 30 dias. (5)
    - ❍ 1-5 vezes nos últimos 30 dias. (2)
    - ❍ 6-10 vezes nos últimos 30 dias. (3)
    - ❍ Mais de 10 vezes nos últimos 30 dias. (4)

11. Indique, por favor, a sua opinião em relação às seguintes afirmações sobre o download não pago de música pela internet.

	1- Discordo totalmente (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7- Concordo totalmente (7)
É demasiado caro comprar música. (1)	❍	❍	❍	❍	❍	❍	❍
Eu não teria dinheiro para comprar toda a música que gostaria de fazer download. (2)	❍	❍	❍	❍	❍	❍	❍
As consequências não são severas se for apanhado. (8)	❍	❍	❍	❍	❍	❍	❍
As discográficas protegem os seus direitos de autor apenas para explorar os consumidores. (3)	❍	❍	❍	❍	❍	❍	❍
As discográficas têm lucros excessivamente altos. (4)	❍	❍	❍	❍	❍	❍	❍
É moralmente justo. (5)	❍	❍	❍	❍	❍	❍	❍
É culturalmente aceite. (6)	❍	❍	❍	❍	❍	❍	❍
Não há um elevado risco de ser apanhado. (7)	❍	❍	❍	❍	❍	❍	❍
Não há nada de errado em piratear música. (9)	❍	❍	❍	❍	❍	❍	❍
Eu considero que piratear música é uma excelente ideia. (10)	❍	❍	❍	❍	❍	❍	❍

12. Idade:

13. Género:
    - ❍ Masculino (1)
    - ❍ Feminino (2)

14. Ciclo de Estudos que frequenta atualmente.
    - ❍ 1º Ciclo- Licenciatura (1)
    - ❍ 2º Ciclo- Mestrado (2)
    - ❍ 3º Ciclo- Doutoramento (3)

15. Instituição de ensino:

16. Concelho de Residência (permanente):

17. Rendimento médio líquido mensal individual (e.g. mesada, bolsas, salário,etc).
    - ❍ Menos de 100 euros (1)
    - ❍ 100-250 euros (2)
    - ❍ 251-500 euros (3)
    - ❍ 501-750 euros (4)
    - ❍ Mais de 750 euros (5)