Lisbon School of Economics & Management
Universidade de Lisboa

MASTER

MARKETING

MASTER´S FINAL WORK

DISSERTATION

MOTIVATIONS IN THE ADOPTION AND CONVERSION OF MUSIC FREEMIUM SERVICES

JOÃO PEDRO RAMALHO MARTINS PACHECO

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SUPERVISION:
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RESUMO

Com o recente avanço tecnológico, é possível ouvir música de novas maneiras. Isto resultou no aumento do valor de mercado da música e no surgimento de diversos serviços de *streaming on-demand* com o modelo de negócio *freemium*. Estes serviços têm sucesso, especialmente, quando os seus utilizadores convertem a sua subscrição de *free* para *premium*.

O presente trabalho propõe-se a estudar quais as motivações que levam os consumidores a adotar uma plataforma de *streaming* de música, e quais as motivações e características de utilizador que levam à conversão para o serviço *premium*.

Alguns estudos dedicaram-se a explicar o porquê desta conversão, mas pouco foi pesquisado no que toca às motivações dos consumidores para distinguir entre diferentes plataformas. Para aprofundar estas questões, este estudo analisa um conjunto de motivações e caraterísticas de utilizador como variáveis explicativas em conjunto, de forma original, não encontrada na literatura. Deste modo, os dados foram obtidos através de um inquérito *online*, com uma amostra de 231 utilizadores portugueses de plataformas de *streaming*.

Os resultados principais apontam que a satisfação, valor percebido e ubiquidade são motivações estatisticamente significativas que influenciam positivamente a escolha de diferentes plataformas. Para além disto, as mesmas motivações, bem como a idade e ocupação (características de utilizador) mostraram-se impactantes no que diz respeito à conversão, sendo relevante do ponto de vista teórico e do ponto de vista prático. No entanto, os resultados destacam a influência negativa da satisfação e idade nesta compra. Isto significa que um utilizador altamente satisfeito não se converte e de modo semelhante, quanto mais velho for o utilizador, menos provável é que a compra ocorra. Não há evidência estatística que as motivações de descoberta, exclusividade, social e personalização e as restantes características de utilizador influenciem a conversão de utilizadores *free* em utilizadores *premium*.

Palavras-chave: Freemium, Motivations, Uses and Gratifications Theory, Music, Streaming.

ABSTRACT

With the recent technological advancement, music is being experienced in new ways. This resulted in the rising value of the music market and the surge of diverse on-demand streaming services with the freemium business model. These services thrive especially when its users convert their subscription from free to premium.

The current dissertation aims to study what motivations drive consumers to adopt different music streaming platforms and what motivations and user characteristics leads them to convert to the premium service.

Several studies endeavoured on explaining this phenomenon, but little research was dedicated on what are the motivations for consumers to distinguish between different platforms. To enhance comprehension in this matter, this study analysis a group of motivations and user characteristics as explanatory variables together as a set, in a original way, not found on the literature. Thus, data was obtained via an online questionnaire, with a sample of 231 Portuguese users of streaming platforms.

The main results suggest that satisfaction, perceived value and ubiquity are statistically significant motivations that positively influence choosing a different platform. Regarding subscribing to the premium service, the same motivations, as well as age and occupation (user characteristics) present influential results, which poses relevancy from a theorical point of view and managerial point of view. However, the findings highlight satisfaction and age as negative influences for this purchase. This means that highly satisfied free users don't convert and similarly, the older the consumer, the less likely the conversion happens. No statistical evidence was found in discovery, exclusivity, social and personalization motivations alongside the remaining user characteristics for the conversion of free users into premium users.

Keywords: Freemium, Motivations, Uses and Gratifications Theory, Music, Streaming.

ABBREVIATIONS

UGT - Uses and Gratifications Theory.

PCA - Principal Components Analysis.

KMO - Kaiser-Meyer-Olkin.

R&D - Research and Development.

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1. INTRODUCTION

1.1. Contextualization

One's musical taste has long been seen as a window into one's sense of self, and a place in society (Frith, 1998), and although music has been present since ancient times (Head, 1997; Wallaschek & Cattell, 1891), it has echoed alongside mankind through the pages of history. But what characterizes music, exactly? A genuine emotional language (Cooke, 1959; Sacks, 2006; Spencer, 1890) that manifests important social functions of self-identity, interpersonal relationships and mood management in everyday life (Hargreaves & North, 1999; Frith, 1998; Londsdale & North, 2011; Schäfer et al., 2013).

In the recent decades, technological developments have ignited a revolution on how music is experienced (Hargreaves & North, 1999). Where once were barriers of time and space, as Frith (1998) states, music and people's access to it changed (Hargreaves & North, 1999; North et al., 2004; O'Hara & Brown, 2006). It is now easier than ever to find a dusty old record in one of the many vast libraries of digitally stored music, and then to listen to that same song throughout one's day, being highly mobile and not dependent of a cassette or vinyl player. Another important field is the evolution of musical production, which has become more standardized and digital (Hargreaves & North, 1999; North et al., 2004; O'Hara & Brown, 2006). Ultimately, this makes music more accessible, portable and cheaper than ever (Londsdale & North, 2011), contributing to the recent surge of on-demand streaming services (Morris & Powers, 2015; Statista, 2020c).

The music industry is accustomed to constant evolution. Nowadays, the global digital music market is valued at about US$24.8 billion and growing in 8.8% yearly (Statista, 2021). In 2020, the global recorded music market grew by 7.4%. While yesterday physical sales dominated this market, today digital services (or streaming) have established a presence and proven to be the new trend. Just last year, data pointed towards a 19.9% growth in both streaming and revenues (with paid subscriptions being a key ingredient, growing in 18.5%), garnering a total value of US$13.4 billion (IFPI, 2021; Statista, 2020a). These on-demand music streaming services can adopt the freemium business model (Segal, 2021; Statista, 2020c), which turns their service into a platform where free users (limited in features and with an ad-based experience) and premium (with additional

full features and no advertisements) coexist in harmony. Examples are Spotify and Soundcloud. These businesses thrive especially when a conversion occurs (Mäntymäki et al., 2020), from free to premium. While no literature was found to observe what makes consumers distinguish and adopt different services, which is a research gap, this information is of great interest to companies to stand out among the competition. Furthermore, knowing what are the main motivations in converting is vital, since companies strategize on their premium and free version to achieve conversion. This has originated research on what values are present in this moment (Mäntymäki & Islam, 2015; Mäntymäki et al., 2020; Wagner et al., 2014).

1.2. Research Aim and Objectives

This study aims to understand consumer's reasons for selecting among different music streaming platforms, adopting them and then convert, or not, into a premium user. Therefore, using Uses and Gratifications Theory (Katz et al., 1974) as a basis, it is intended to explore the underlying motivations of these behaviours and their relations with the platforms in the digital music industry. Based on the literature review, a set of six motivations is proposed to understand their impact.

The research questions for this study are:

Q1: What type of motivations are impactful on different platform adoption?

Q2: What leads a user to convert to premium?

1.3. Relevance to Marketing Theory and Practice

Customer lifetime value is gaining increasing significance as a marketing metric in both academic and management practice (Gupta, 2006), being defined as the present value of all future purchases by the customer (Kotler & Armstrong, 2017). This is important for firms that adopt the freemium business model since it allows them to prosper (Segal, 2021; Zhang, 2010). This study focuses on a set of motivations and user characteristics, retrieved from previous research, in order to provide a more complete answer. So, from a managerial perspective, knowing what motivations drive consumers in these services would provide a strategic advantage for the company upon its rivals in the digital music market. On a theoretical standpoint, this research aims to further enhance the knowledge on the Uses and Gratifications Theory within these services, regarding consumers and their underlying motivations on the music streaming context. Moreover,

this study takes on a new unique research goal, not found on the reviewed literature, seeking to understand what motivations drive consumers into distinguishing these services. With the growth of the Digital Music market and surge of music streaming services, companies are keen on what users might be looking for in a music streaming platform and develop features to make it standout (Morris & Powers, 2015; Statista, 2021).

1.4. Document Structure

This dissertation is divided in seven chapters. It begins with this brief introduction on music, its importance and evolution, clarifying the research objectives, academic and managerial relevance. The second chapter characterizes the value and trends on the digital music market. The Literature Review is presented on the third chapter, describing music streaming platforms and the basis of the research, Uses and Gratifications Theory (UGT). This is followed by an in-depth look at each motivation present when using these services, and what was found on literature that leads to platform adoption and premium conversion. The fourth chapter showcases the Conceptual Model and Research Hypotheses. The fifth chapter details the adopted methodology. The sixth chapter regards data analysis, hypotheses testing and the result discussion. Lastly, the seventh chapter presents the conclusion, scientific contributions, the research's limitations and suggestions for future studies.

2. DIGITAL MUSIC

2.1. Characterization of the Digital Music Market

The recorded music industries are shifting away from the physical sale of recordings and moving towards the digitization of music (Montoro-Pons et al., 2020; Morris & Powers, 2015), greatly creating new trends on how to consume music (Statista, 2021). Not long ago, in 1991 the MP3 audio format was invented, with a first mass-manufacturing of MP3 players dating back to 1998 in South Korea. Shortly after, Napster (1999) was released, the first P2P file sharing service for MP3 files (later rebranded as a legal online music store and streaming service). In 2001, Apple then revolutionized the world of music, unveiling the iPod and iTunes, which allowed consumers to purchase

single music tracks. Finally, in 2006, Spotify was founded, enabling unlimited access to millions of songs (Statista, 2021). Today, physical sales have been streamingly declining (Statista, 2020c; Statista, 2021). Also, illegal distribution and downloads negatively affects revenue sales (Statista, 2020c; Statista, 2021). However, ad-based and freemium services like Spotify as well as subscription-based services such as Apple Music contribute to the rising popularity of music streaming services (Statista, 2020c; Statista, 2021). Out of the Digital Media market, the Digital Music segment is built on two sub-segments: Music Streaming and Music Downloads (Statista, 2021). The following table (Table I) briefly explores the sub-segments found on the digital music market.

Table I. Brief presentation of the Digital Music market

Segment	Sub-segments	Description	Examples
Digital Music	Music Streaming	Digital music streaming services offer unlimited access to their content libraries either for a monthly subscription fee or ad-supported, with forced advertisements breaks between the tracks. Music can be streamed to various connected devices.	Spotify Deezer SoundCloud Apple Music
	Music Downloads	Digital music downloads are defined as paid downloads of single tracks or albums/compilations. Digital music files can be purchased per one-time transaction and are then permanently accessible for the user.	Apple's iTunes

Source: Adapted from Statista (2020c)

As referred, the global Digital Music market size is about US$24.8 billion in 2021 and is growing at an average growth rate per year of 8.8%, being expected to reach a global revenue of US$34.8 billion by 2025 (Statista, 2021). Moreover, two major trends are expected: a growth in Music Streaming and a decline on Music Downloads (Statista, 2021; IFPI, 2021). As of 2020, streaming and music streaming worldwide revenue's value grew by 19.9% accounting US$13.4 billion (Statista, 2020a; IFPI, 2021). Paid subscriptions were the key driver of this, growing in 18.5%. Streaming was deemed the dominant format, amassing 62.1% of global recorded music revenues (IFPI, 2021).

Focusing on streaming subscribers (or the so-called premium users), on a worldwide scale there are between 400 million in the first quarter of 2020 (Statista, 2020a) to 443 million in 2020, with a growth in paid subscription streaming revenues of 18.5% in the

same year (IFPI, 2021). Of these, Spotify leads the market by holding a staggering amount of 158 million premium subscribers, or a subscriber share of 35%, followed by Apple Music with 72 million subscribers, with a share of 19% subscribers (Statista, 2020a). Other services are Amazon (15%), Tencent (11%), Youtube (6%) and others (14%) (Statista, 2020b). Here is an example about Spotify: the service has around 356 million monthly active users, whereas 165 million are premium subscribers and 210 million are free users. These values translate to a total revenue of 2,331€ million, where free users support by 275€ million and 2,056€ million by premium users (Spotify, 2021b). In other words, there are more free users compared to premium users in Spotify, but the subscribers massively compensate the income for Spotify.

In Portugal, the revenue from digital music – music streaming and music download together - was registered at US$34 million in 2020 (Statista, 2020b). Currently, the country's present music streaming services are: Spotify, Apple Music, Soundcloud, Tidal, Youtube, Youtube Music, Google Play, Deezer, Amazon and Napster (Pro-Music, 2021).

3. LITERATURE REVIEW

In this chapter, the literature review will address the business model behind the major music streaming platforms that fuels the industry and a brief presentation on the theory that sets the structure for the motivations. This is followed by a review of the research made upon motivations and research under UGT, which builds the set of six motivations and the research model presented further on.

3.1. On-demand Streaming Services and Freemium Business Model

The growth of the Internet has created a myriad of opportunities for digital business models, alongside stronger competition and great technological change (Veit et al., 2014). As mentioned previously, the Digital Music market evolved, thanks to the recent emergence of on-demand streaming services that are growing in power (Statista, 2020c; Statista, 2021). One business model found in these music streaming services is the freemium business model (Dörr et al., 2013; Segal, 2021; Statista, 2021). Its name originates from the combination of the words "free" and "premium" (Gu et al., 2018). This business model has become present in a wide range of online businesses, including

digital content services such as music, newspapers, data storage services, social networking and video games (known as free-to-play) (Hamari et al., 2017).

The freemium business model includes of two alternatives. The first is offered free of charge, whilst the second is sold at a cost. As a result, there are two types of users: free users or the buyers, also known as premium users. Both groups of users have distinct demographics, behaviour and needs (Anderson, 2009; Pujol, 2010). However, despite these differences, they share all entities present in the platform and show interdependence between themselves (Anderson, 2009; Pujol, 2010). The aim of the freemium business model is to attract consumers with low acquisition costs, but with high lifetime value (Segal, 2021; Zhang, 2010). That being said, acquisitions costs correspond to the full expense incurred in enticing new customers to the service (Tuovila, 2020) and customer lifetime value is defined by Kotler & Armstrong (2017) as the total value of the stream of purchases a customer makes over a lifetime of patronage. Since free users can use the service without financial commitment, businesses raise the number of total users (Segal, 2021). Locking features that are exclusive for the buyers defines this type of freemium business model as feature limited (Anderson, 2009), resulting either in a basic free version or a more enhanced paid version. Users have access to the free features and can upgrade at a cost if they wish to. When this happens, users convert from free to premium.

Music streaming services can use the freemium business model (Dörr et al., 2013; Statista, 2020c), allowing the user to enjoy music for free with advertisements (ads for short) or give the choice to subscribe at a cost to the premium service, with unlimited ad-free music streaming, improved sound quality, offline access and additional features (Doerr et al., 2010; Dörr et al., 2013; Wagner et al., 2014). Examples of services in the music realm that use this business model are Spotify and Soundcloud.

Revenue is generated either by selling ads while offering the free service or especially by selling a monthly subscription, in return for no ads and added perks (Dörr et al., 2013; Wlömert & Papies, 2016). The main goal is to convert free users into premium users, and thus, generating additional revenue (Garrahan et al., 2015; Jiwhan Kim et al., 2017; Mäntymäki et al., 2020; Wagner et al., 2014).

Music streaming services fall under three conditions: music abundance, comprising social networks structures (generally integrated into the platform) and intangibility

regarding the streaming format (Hagen, 2016). These digital music services no longer seek to sell objects or aren't focused on exclusive content, but rather sell branded musical experiences, inviting consumers to see themselves and their attitudes about music reflected by the service they choose to adopt (Morris & Powers, 2015). The services distinguish themselves thanks to interface (how a platform looks and is designed), its quality, identity and control over music (Morris & Powers, 2015).

When using music streaming services, consumed music is not stored directly in the user's device (although this is possible on certain platforms, like a premium user on Spotify or when subscribing to Apple Music's service). Content, such as playlists and new recommendations, is generated based on the user's music preferences (Mäntymäki et al., 2020; Prey, 2017; Sinclair & Tinson, 2017), being also organized in the pathways of mood and genre (Garcia, 2016), while being linked to the platform's social network (Dörr et al., 2013), allowing to create and share personalized content with others (Hagen & Lüders, 2017). User engagement with the product – in this case the streaming platform – and consumption take place mostly online and occasionally offline through a digital device (Holm & Günzel-Jensen, 2017). Consequently, these services are available on a computer (either as an app or on the web), smartphone and other devices.

To ensure success of the freemium business model, services must firstly attract and retain free users, and then convert them into premium users (Kumar, 2014). Having a solid user base is key priority, as having free users may not provide enough revenue as future premium users, which makes conversion rates a prime concern. Nonetheless, free users are of special interest for attracting venture capital, increasing the service's value (Holm & Günzel-Jensen, 2017; Wagner et al., 2014). To attract more consumers to the premium service, some companies offer a free trial of the premium version (Statista, 2021), more effective on medium to high usage users (Reza et al., 2021). Additionally, services like Spotify, for example, offer premium alternatives with different costs (Statista, 2021), such as the Spotify Premium Individual, Spotify Premium Family or Spotify Premium Student. Besides the number of accounts per offer, Spotify even adds extra perks to each alternative, such as the family mix and the option to block explicit music (in the Family option). These additional pricing models may help bring in more users into the streaming service (Statista, 2021). Another practiced strategy is to integrate the service with another product, in other words, product bundling, and sell them as a

whole (Adams & Yellen, 1976). For example, in the Portuguese context, Tidal's subscription is included in Yorn's phone tariff, owned by Vodafone, a worldwide mobile operator (Yorn, 2021).

3.2. Uses and Gratifications Theory

The Uses and Gratifications Theory intends to understand consumer behaviour, and in what way consumers seek to use media for their satisfaction and gratification (Katz et al., 1974). A framework is generated, composed by motivations that lead consumers into acting in a certain way (Blumler, 1979; Swanson, 1987). In other words, UGT presents the hypothesis of the existence of social attributes and psychological needs that justify the action of each individual to seek out specific media, fulfilling those needs and thus generating gratification. Each user evaluates characteristics to choose between media with different degrees of importance (Jungkee Kim & Rubin, 1997; van der Wurff, 2011), since media messages are interpreted differently by individuals (Gunter, 1988).

One of the first studies that gave birth to the theory seeked to discover what gratifications radio listeners had (Herzog, 1941) and it's still used in the present (Ruggiero, 2000). The fast evolution of technology affects the way of how communication is made. This innovation brings along new media that can be accessed via electronic devices and digital platforms (Leung, 2000). As a result, UGT is still valuable, justifying its goal to understand the new interactive digital environment in constant change (Rubin, 2009). In this study's case, recent media like music streaming.

UGT has the following assumptions: Firstly, the audience uses media in an active way to satisfy their needs, instead of being passive receivers. This means that media is used in a goal-oriented way. Secondly, people are conscious enough of their motives and interests. Third, the process of identifying the need gratification and choosing a media usually starts with the individual, and not the other way around. Fourth, there are other sources, besides the media, for need gratification. This results in great variability in what needs are met by media or other alternatives. Lastly, only the audience can evaluate the value of judgments of media content, regardless of value judgments about the cultural significance of mass communication (Grant, 2009; Katz et al., 1973a; Katz et al., 1974).

Since audience members are driven to accomplish goals via the media, "these needs, typically, take the form of strengthening or weakening, a connection – cognitive,

affective, integrative with some referent – self, friends, family and tradition, social and political institutions, others" (Katz et al., 1973b, p. 179). To summarize, there are five general types of needs defined, as shown in the following table (Table II).

Table II. Needs gratified by the Media

Need Type	Goal	Media Example
Cognitive Needs	Strengthening information, knowledge and comprehension	Television (news), movies (documentaries or historical) or reading the newspaper
Affective Needs	Strengthening aesthetic, pleasurable and emotional experience	Watching a movie, watching television (sitcom), reading a book or listening to music
Personal Integrative Needs	Strengthening credibility, confidence, stability and status	Reading a book and watching movies/television
Social Integrative Needs	Strengthening contact with family, friends and the world	Watching film/television together or chatting on the internet
Escape or Tension-release Needs	Weakening of contact with self and one's social roles	Watching a movie, reading a book or listening to music

Source: Adapted from Grant (2009) & Katz et al. (1973b)

3.3. User Motivations and Characteristics

While several studies have been dedicated towards the role and importance that music has in society (Hargreaves & North, 1999; Londsdale & North, 2011; North et al., 2004; Schäfer et al., 2013), more in-depth research has highlighted the motivations behind the adoption of a freemium service and what led to the subscription of the premium service.

Generic motivations about paying for online content are convenience, essentiality, added value, perceived service quality, usage frequency, perceived fairness and safety concerns (Wang et al., 2005). In a video game context, characteristics such as assurance, empathy, reliability and responsiveness are related to play intention, but none directly affect the intention to buy the premium option (Hamari et al., 2017). Additional constructs such as intrusiveness of advertising, social connectivity, discovery of new music, ubiquity, price value of the premium subscription, enjoyment and intention to upgrade or keep the premium were also studied (Mäntymäki et al., 2020). These authors consider

that enjoyment and price value were the only predictors of the intention to upgrade, while remaining a premium user was determined by discovery and ubiquity.

Additionally, previous research endeavoured to using the UGT in this context. Motivations such as enjoyment, discovery of new music, ubiquity, and social connectivity lead to platform adoption and usage, with different levels of importance between free users and premium users (Mäntymäki & Islam, 2015). While considering different music formats (Krause & Brown, 2019), usability, intention to use, discovery, functional utility, flexibility, connection, social norms, value for money and playback diversity show a stronger association to the digital format, compared to radio and physical formats. Regarding streaming services, emphasis is given to discovery and playback diversity, in comparison to other factors. Listening to music daily is positively associated with the purchase of the premium subscription. Choosing to listen to music for free, or to pay for it, is not just about the monetary factor, taking into consideration intention of use and discovery.

There are several user characteristics that play a role on the music streaming context that are worthy of a mention. Psychological characteristics play a key role in evaluating features and prices (Niemand et al., 2019). On the other hand, loyalty is also a factor when using these platforms because from a utilitarian point of view, a consumer invests time in creating playlists and recognizing the user friendliness of the service, causing reluctance upon switching providers (Sinclair & Tinson, 2017). Empirically, satisfaction and user loyalty were found to be linked (Voss et al., 2010). Lastly, since advertisements are present for free users, ad intrusiveness may come into play, whereas some users may disregard ads or not, as suggested by Mäntymäki et al. (2020). If perceived as intrusive and feelings of irritation develop, advertisements are likely to elicit negative attitudes in consumers (H. Li et al., 2002), although consumers that are highly adapted to advertisements aren't motivated to convert (Z. Li & Cheng, 2014). Curiously, there was no significant negative effect of intrusiveness of advertising impacting satisfaction among free users (Mäntymäki et al., 2020).

Based on the suggestion of Krause et al. (2014a), to understand perceived gratifications in online applications of the music industry, this research will focus on Discovery (the ability to discover new music), Satisfaction (how much one enjoys using

the service), Ubiquity (the ability to listen to music wherever and whenever one wants), Social and Personalization (the importance of personalization of the avatar, playlists and the opinion of friends), Exclusivity (what premium perks are more desired) and Perceived Value (how are the both version of the service perceived). In the following subsections, these motivations are conceptually defined and then expounded in the music platform's context. The motivations were mainly chosen and adapted from previous research (Doerr et al., 2010; Hamari et al., 2017; Kamehkhosh et al., 2020; Jiwhan Kim et al., 2017; Krause & Brown, 2019; Mäntymäki et al., 2020; Wagner et al., 2014; and others).

3.3.1. Discovery

Completely new experiences deliver epistemic value, which is a concept associated with the capacity of a product to induce feelings of satisfaction, curiosity and desire to learn something new (Sheth et al., 1991). Therefore, discovery in music can be defined as the desire, or curiosity, to discover new music, artists and amplify musical taste.

Music streaming platforms can serve as a channel of music discovery (Aguiar, 2017) and music consumption has become mostly determined by playlists – defined as a sequence of tracks with similar characteristics, such as genre or tempo (Bonnin & Jannach, 2014) that are created by these services or other users. These services offer search and recommendation features that help users find content to suit their musical preferences (Mäntymäki et al., 2020; Prey, 2017). This leads consumers into following recommendations because they often wish to discover something new (Kamehkhosh et al., 2020). Generating these playlists for each user to discover new music poses a big challenge (Schedl et al. 2018). Playlist coherence and prediction accuracy not only leads to more approval, but also increase quality perception by its users. Discovering new music, that is appreciated, is related with satisfaction (Garcia-Gathright et al., 2018) and curiously, recommendations are better evaluated when the user already knows a track or artist (Kamehkhosh & Jannach, 2017). Criteria such as artist diversity or track homogeneity in a playlist are considered important (Cunningham et al., 2006; Lee et al., 2011). However, an interesting detail is noticed, as it is unclear to what extent high prediction accuracy or high track similarity translates into high user satisfaction or an increased adoption of the service (Jones, 2010; Lee et al., 2011). This is something that can be further researched. Discovery was deemed a key factor contributing for premium users to keep their subscription (Mäntymäki et al., 2020).

3.3.2. Satisfaction

By definition, satisfaction is the response based on the fulfillment of the consumer's needs (Oliver, 2014), consequence of the pleasure provided by a product or service. The extent as to which a product's perceived performance matches a buyer's expectations (Kotler & Armstrong, 2017).

Satisfaction is most valued among free users (Mäntymäki & Islam, 2015) and strongly influences continuance intention (Jongbum Kim et al., 2018), but in this scenario, it has the inverse effect on purchase intention of the premium version (Hamari et al., 2020; Rahmansyah & Hati, 2020). To offset this, if there are significant differences between the free version and premium version, satisfied customers are converted (Jongbum Kim et al., 2018). Other literature found that for free users, enjoyment played a dominant role in predicting intention to upgrade but poses no effect on the premium users in keeping the subscription (Mäntymäki et al., 2020). It also suggests that for free users, upgrading is essentially hedonically oriented, focusing on benefits such as enjoyment and a consideration on the price value (benefits against the costs).

3.3.3. Ubiquity

Ubiquity is a multiconcept motivation that is the result of continuity, immediacy, portability and reachability (Okazaki & Mendez, 2013) and is considered a powerful trait of mobile services. As a result, in the music streaming services it dictates the possibility to listen to music everywhere and at any time. Thanks to technological development, music is more portable and individualized (Hargreaves & North, 1999) surpassing previous barriers of time and space (Frith, 1998). Consequently, this improvement allows for listeners to have more control over the music they listen (North et al., 2004; O'Hara & Brown, 2006). Ubiquity can present personal integrative gratifications by strengthening one's sense of self-efficacy related to music listening (Mäntymäki & Islam, 2015; Nambisan & Baron, 2009).

Ubiquity highly affects user friendliness, time convenience and enjoyment, in mobile services (Tojib & Tsarenko, 2012). Furthermore, technologies that give power of choice to the user probably lead to a bigger sense of psychological ownership (Kirk et al., 2015), resulting in a more positive listening experience (Krause & North, 2017a, 2017b). Selection methods that require individual input, like personal mixtapes or choosing a

specific song, had more positive responses in contrast to users who had no control (Krause et al., 2014b). For premium users, ubiquity is seen as a paid benefit, and important for their retention (Mäntymäki & Islam, 2015). Additionally, freemium services can differentiate their free and premium versions in terms of ubiquity (Mäntymäki et al., 2020). Ubiquity may create a lock-in effect among premium users, as there were differences in both level of ubiquity between basic and premium and the effect on converting and keeping the premium subscription (Mäntymäki et al., 2020).

3.3.4. Social and Personalization

Music streaming platforms allow the users to create and share content with each other, even extending to other social media (like Instagram). This personalization enables users to tailor their own service experiences (Hamari et al., 2017; Sinclair & Tinson, 2017), that ultimately may allow users to show and express an extended or enhanced self in the digital world (Belk, 2013). Yet, it has been noted that most of the perks of becoming a premium user aren't directly linked with community aspects (Oestreicher-Singer & Zalmanson, 2013). Streaming services enable the possibility for connection and being influenced by others (Hagen & Lüders, 2017). Normative social influence is the influence to conform with the positive expectations of another (Deutsch & Gerard, 1955). This persuasion can be utilized to buttress as well as to undermine individual integrity. Furthermore, music's social function acts upon the formulation and expression of one's self-identity, interpersonal relationships and mood management in everyday life (Hargreaves & North, 1999; Londsdale & North, 2011).

Personalization takes the form of increased service options, interface choices, user avatar (Hamari et al., 2017; Morris & Powers, 2015), user playlists and even personal uploads (available on Soundcloud or Youtube, for example). Social connectivity is deemed the weakest factor to continue to use a service (Mäntymäki & Islam, 2015) and has no effect on conversion intent, but showed a small negative effect on remaining a premium user (Mäntymäki et al., 2020). However, friends who purchased the premium strongly influence the propensity to buy the premium version while having non subscribing friends has a small negative effect in converting (Oestreicher-Singer & Zalmanson, 2013). This is where individual judgment is influenced by others, in the sense that these judgements are taken more or less trustworthy in the reality that all are participating (Deutsch & Gerard, 1955). While on another freemium topic, free-to-play

videogames, the number of in-game friends strengthens the effect of product experience on in-game spending (Shi et al., 2015). Research found that on Last.fm, a website that proffers both music consumption and online community features, the presence of an affective community may be ultimately related towards monetary payment, along with the fact that more active users in the community will convert to premium sooner than less active or even non active users (Oestreicher-Singer & Zalmanson, 2013).

3.3.5. Exclusivity

To distinguish both sides of the freemium spectrum, premium users are offered extra benefits. Thus, buyers have a relative advantage, defined as the benefit of premium features (Jongbum Kim et al., 2018). Although, balance must be taken into account for designing and sustaining high value offerings for both free and premium (Dörr et al., 2013; Holm & Günzel-Jensen, 2017; Niemand et al., 2019; Palazon & Delgado-Ballester, 2013).

Besides having omitted advertisement, premium users are (generally) able to download and store tracks on the device's cache – allowing for offline listening on the app – and stream at a higher sound quality (for example, a quality boost from AAC 128 kbit/s compared to AAC 256 kbit/s on Spotify's Web player), access to the full music catalogue, ability to choose any song on any device – or streaming mode (Jiwhan Kim et al., 2017) - and unlimited song skips (Soundcloud, 2021; Spotify, 2021a). These strategies vary between different services: a free user in Spotify mobile is unable to choose specific tracks, being constricted to a generated playlist and has a limited number of song skips (a skip means moving forwards to the next song on a playlist). However, on the computer, the same user isn't limited by these factors, only being interrupted by advertisements. On the other hand, Soundcloud takes a different approach by severely limiting the musical catalogue for free users.

3.3.6. Perceived Value

One's perceived value is a general assessment of the utility a product has, based on a trade-off between what is benefits and sacrifices (Zeithaml, 1988). It is relative by virtue of its comparative, personal, situational nature, defining it as preferential, perceptual and cognitive-affective (Sánchez-Fernández & Iniesta-Bonillo, 2007). Value for money corresponds to whether acquiring the premium version offers value for the money spent

(Jongbum Kim et al., 2018). In the end, if the perceived benefits surpass perceived sacrifices, conversion happens (Z. Li & Cheng, 2014). This is related to the premium fit concept, where a high premium fit suggests that the free version of the service includes most of the premium version's functions (Wagner et al., 2014), while oppositely, low premium fit translates to a very limited free version, in comparison to the alternative.

Usually, consumers will experience a zero-price effect (characterized by having a positive affective evaluation of the free option). As a consequence, more value is perceived in the free version (Niemand et al., 2019). Companies could offset similarity between versions by changing availability of functions and features in both versions (Gu et al., 2018; Lin et al., 2013) and inform users on the gained benefits for adhering to premium (Shi et al., 2015). Providing additional features for free users creates perceptions among users of the value of the premium version (Wagner et al., 2014), increasing the probability for free users to upgrade. This fits other study's findings, because in order to increase conversion rates, designing premium features that offer value for money, being distinguishable from the free features and more user-to-user interactions are deemed important (Jongbum Kim et al., 2018). Price value of the premium subscription has a positive effect on the intention to upgrade and no effect on retaining the premium subscription. Also, paying users experience higher levels of price value, when compared to basic users (Mäntymäki et al., 2020). These two findings suggest that when presented with sufficiently good price value, decisions upon remaining premium are based on other constructs such as discovery of new music or ubiquity.

4. CONCEPTUAL MODEL AND HYPOTHESES

According to the previous research made upon the motivations present on music streaming platforms the following table (Table III) is presented. In it, key references lead to the conceptual meaning of each motivation and were adapted in accordance with this study, as presented in the table.

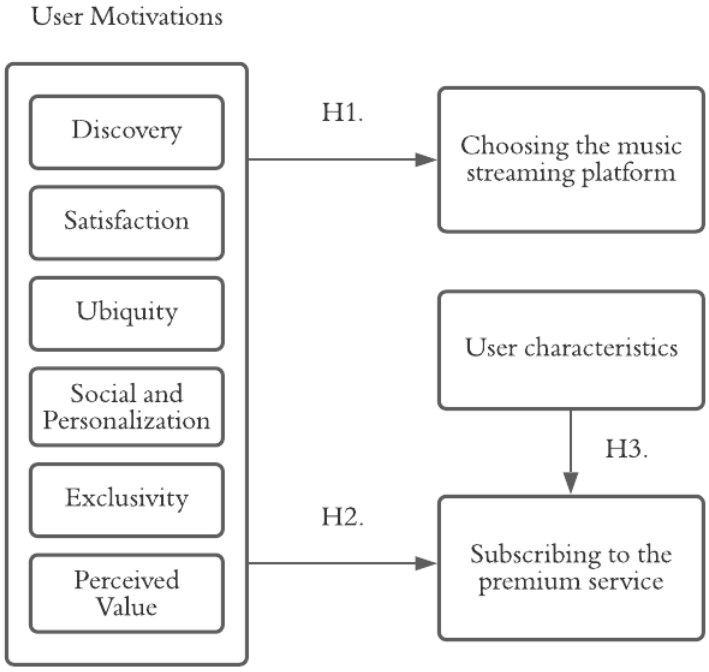
Table III. Research constructs and their definition

Motivations	Description	Key References
Discovery	To what point does discovery aid in discovering new music, artists and expanding one's musical tastes.	Sheth et al., 1991
Satisfaction	What is the level of enjoyment that a user has, while using the platform.	Oliver, 2014
Ubiquity	How important is it for a user to listen to music at any point, everywhere, whenever desired.	Okazaki & Mendez, 2013
Social & Personalization	To what extent community features are important to the listener, how do friends impact individual judgement and if personalization matters to a user.	Oestreicher-Singer & Zalmanson, 2013
Perceived Value	How both versions of the platform are perceived to the different user types.	Jongbum Kim et al., 2018
Exclusivity	How and what premium set of features are appreciated by both types of users in the freemium spectrum.	Zeithaml, 1988

Note: Description of the motivations present in the conceptual model.

The first part of the research addresses the level of importance of each motivation for service adoption, in accordance to each user. The second part evaluates if a premium conversion occurs, depending on how users evaluated their experience for each construct alongside user characteristics. In short, this study seeks to comprehend what motivates users, regarding the adoption and use of different music streaming platforms, according to the following conceptual model in Figure 1:

Figure 1. Conceptual Model



Each construct is compiled by a set of items, allowing the measurement of how users evaluated their experience (for example, regarding Discovery, if the recommended music was enjoyed, fit one's musical preferences, etc.). Additionally, user characteristics encompass demographic qualities of the user (such as income and gender), what content is preferred on music streaming platforms, how bothersome are ads, the importance given to music and listening habits.

With the goal to answer the research questions proposed in the introduction and literature review, the hypotheses are presented as:

Table IV. Research Hypotheses

	Research Hypotheses
Q1	**Impactful Motivations on Platform Adoption**
	H1: The motivations influence the platform adoption.
	H1a: Discovery influences the platform adoption.
	H1b: Satisfaction influences the platform adoption.
	H1c: Ubiquity influences the platform adoption.
	H1d: Social and Personalization influence the platform adoption.
	H1e: Perceived Value influences the platform adoption.
	H1f: Exclusivity influences the platform adoption.
Q2	**Motivations and User Characteristics that lead to Conversion**
	H2: The motivations influence premium conversion.
	H2a: Discovery influences premium conversion.
	H2b: Satisfaction influences premium conversion.
	H2c: Ubiquity influences premium conversion.
	H2d: Social and Personalization influence premium convserion.
	H2e: Perceived Value influences premium conversion.
	H2f: Exclusivity influences premium conversion.
	H3: The user characteristics influence premium conversion.

Note: The Q1 and Q2 refer to the research questions presented on 1. Introduction.

5. METHODOLOGY AND DATA COLLECTION

5.1. Research Type

The present research follows a positivism philosophy. An independent observation of reality occurs, in which existing theory is used to produce and test hypotheses (Saunders et al., 2016).

Additionally, it adopts a deductive reasoning approach, with the search to explain causal relationships between concepts and variables. This results in the development of a theory subject to a rigorous hypotheses testing. Thus, this study has a descripto-explanatory nature, as a mean of assessing different motivations between music streaming consumers and in what way do these motivations impact their adoption and usage of these services (Saunders et al., 2016).

The chosen research design is the mono method quantitative study, resorting only to a single data collection technique and corresponding quantitative analytical procedure. In order to obtain data, the survey strategy uses a questionnaire, which allows the collection of standardized data from a sizeable population in an economical way, enabling an easy comparison. Since current motivations and behaviours (platform adoption and premium conversion) are the objects on this dissertation, the time horizon is classified as a cross-sectional study, to provide insight on this phenomenon (Saunders et al., 2016).

5.2. Population Definition and Sample

Individuals who reside in Portugal whom are, at least, 18 years old (enabling them with legal and intellectual capacity to make choices in their own right, such as the purchase of premium) and regardless of gender, belong to this study's population. However, a prominent criteria is that the individual is a user – free or premium of one or more music streaming platforms.

To acquire the target sample the non-probability sampling technique of convenience sampling was used, permitting for data collection that is widely available, but suffers from bias and other influences beyond the researcher (Saunders et al., 2016).

5.3. Questionnaire, Data Collection and Scales

Before the questionnaire was available online, a pre-test was made in order to check if the participants would understand the study's context, given questions and scales presented. These individuals tested the questionnaire and were not part of the final sample, and were selected from judgmental sampling (Saunders et al., 2016), composed of 16 individuals who were both free or premium users of a list of music streaming platforms. From this analysis, a few clarifications were made (for example certain terms were specified), resulting in the final version of the questionnaire (Appendix 1).

To collect primary data a structured questionnaire was administered online on Qualtrics. The questionnaire was launched from the month of June till July, and was shared in different social media: Instagram, LinkedIn, Facebook and WhatsApp.

To allow the measurement of each motivation, various scales were adapted (translations to Portuguese and generalization of the topic in the questions) and items created based on the literature (Appendix 2).

Discovery was adapted from Mäntymäki et al. (2020), with the aim to understand how the recommended songs are perceived and its effectiveness. Satisfaction, based on Mäntymäki et al. (2020) analyses user satisfaction, and two factors were incorporated: loyalty towards the music streaming platform and advertisement intrusiveness. Ubiquity endeavors on the importance of the qualities of music streaming, which was studied by Krause & Brown (2019). Social and Personalization focuses on both social identity in streaming and the impact of a community, as studied by Mäntymäki et al. (2020). Perceived Value seeks on evaluating the perception of both versions of the freemium spectrum, previously studied by Wagner et al. (2014). The exclusivity factor checks if were there any preferred premium benefits among the identified list (Jiwhan Kim et al., 2017).

Additional items were included in the previous mentioned scales and on different topics, such as the evaluation of the music streaming platform's version and look (Morris & Powers, 2015), importance of music, type of content listened, and others. This was done to assess the hypothesis of user characteristics in conversion and other factors.

The degree of agreement or disagreement was measured via a 7-point Likert scale (Albaum, 1997), ranging from Completely Disagree (1) to Completely Agree (7).

5.4. Preliminary Data Analysis and Statistical Tests

The data was analyzed via the SPSS IBM Statistics software. A total of 291 answers were harvested, being refined into 231 valid answers after data cleaning (with the removal of incomplete answers), discarding unsatisfactory responses (answers were too contradictory and didn't make sense in the context) and the correction of writing errors.

For the hypotheses testing, six constructs were created from a set of questions via an index (Saunders et al., 2016), corresponding to each motivation (Appendix 3). This creation demanded a preliminary data analysis of the new indexes, or construct validity (Saunders et al., 2016), through a Principal Components Analysis (PCA). The PCA corresponds to a class of procedures primarily used for data reduction and summarization (Malhotra et al., 2017). To confirm if the items are correlated and measure the motivations, the Kaiser-Meyer-Olkin (KMO) criterion and the Bartlett's test of sphericity results were analyzed (Sarstedt & Mooi, 2019). The KMO threshold values of 0.5 to 1 reveals how suitable the PCA is (Sarstedt & Mooi, 2019).

Table V. Principal Components Analysis

Index Variables	KMO	Total Variance Explained (%)	Bartlett's Test of Sphericity	
			Chi-Square	Sig.
Discovery	0.8275	55.518	556.3551	0.000
Perceived Value	0.7935	51.675	508.7935	0.000
Ubiquity	0.7854	55.130	610.9750	0.000
Satisfaction	0.5981	38.860 25.816	50.6439	0.000
Personalization	0.6959	46.705	212.8318	0.000
Social	0.6399	69.859	237.1892	0.000
Exclusivity	0.7971	48.164	376.1752	0.000

Note: Own elaboration.

The KMO values of the index variables oscillate between 0.640 up to 0.828 (satisfaction not included) and the total explained variance is at least superior to 46% for the presented indexes, close to the suggested 50% (Sarstedt & Mooi, 2019). Regarding Bartlett's Test of Sphericity, all variables are proven to be significantly correlated (p=0.000). The values for communalities reach at least 0.5 (Sarstedt & Mooi, 2019), with very few exceptions. When a communality value is low it may indicate that it doesn't fit well with the other items of the component and its removal may increase total variance explained (Pallant, 2016). These are compensated since the sample size (231) is greater

than 200 and the constructs are measured by at least 3 items (Sarstedt & Mooi, 2019). All this information concludes that the PCA supports the grouping of the index variables, forming the constructs (Appendix 4).

Additionally, to measure construct internal consistency and assess reliability, the Cronbach's Alpha coefficient was calculated. This coefficient should have a value superior to 0.7 (Sarstedt & Mooi, 2019).

Table VI. Cronbach's Alpha coefficient

Index Variables	Cronbach's Alpha
Discovery	0.810
Satisfaction	0.334
Perceived Value	0.780
Ubiquity	0.816
Personalization	0.705
Social	0.781
Exclusivity	0.744

Note: Own elaboration.

All presented index variables with a Cronbach's Alpha greater than 0.7, except satisfaction, are granted internal consistency and reliability for the created variables of this study (Sarstedt & Mooi, 2019) (Appendix 4).

According to the preliminary data analysis, the Satisfaction construct failed to show correlation and consistency within its items. Thereupon, each item composing the motivation will be analyzed separately and only one item measured satisfaction itself. In this study's context, this may explain that the gained satisfaction upon using a streaming music platform is not affected by advertisement intrusion – in other words, listeners aren't bothered by the presence or not of ads in their session – as well as satisfaction isn't related to platform loyalty nor expectations. Additionally, items on other scales that turned a construct's Alpha Cronbach value to lower than 0.7 were also studied in isolation.

The following two statistical tests supported the analysis of the research hypotheses. The nonparametric test Kruskal-Wallis H (Sarstedt & Mooi, 2019) was applied to measure the relation between the importance of motivations and the adoption of different music streaming platforms (H1). This test was specifically chosen, as an alternative to ANOVA one-way, since common statistical assumptions were violated (Malhotra et al.,

2017; Sarstedt & Mooi, 2019). This decision was made because normal distribution wasn't met. Also, the number of observations is inferior to 30 on the platforms Apple Music (4), Soundcloud (1), Tidal (1) and Youtube Music (3), even though the sample's size is 231.

The Binary Logistic Regression (Sarstedt & Mooi, 2019) was used in order to study the influence of each motivation and user characteristics on premium conversion (H2 and H3, respectively). Therefore, the independent variables are motivations and user characteristics and dependent binary variable of being a premium user, or not. This regression has linearity (each predictor has a linear relationship with the log of the outcome variable), multicollinearity (predictors should not be too highly correlated), independence of errors (cases of data should not be related) and outlier (wrongly classifying a case's category) assumptions (Pallant, 2016).

6. RESULTS AND DISCUSSION

6.1. Descriptive Statistics

The sample of this research consists of 231 Portuguese consumers who use at least one music streaming platform and are a free user or premium user (Appendix 5).

Of these, 66.7% (154) of the participants are female, 32% (74) male, and 1.3% (3) identify as other gender. A great majority of respondents are aged between 18-25 years (86.6%), while ages from 26-35 (8.2%), 36-45 (1.3%), 46-55 (2.6%) and greater than 55 years old (1.3%) complete the rest of the sample. Regarding the area of residence, 135 consumers (58.4%) live in the Lisbon metropolitan area, 59 (25.5%) in the center area, leaving 25 (10.9%) spread out across the rest of continental Portugal and 12 individuals (5.2%) being from Azores and Madeira. In terms of educational qualifications, 130 respondents point towards a bachelor level (56.3%) and 79 people (34.2%) with secondary level of education, 19 (8.2%) with a master's degree and 3 others (1.3%) for the remaining options. Finally, the sample is composed by 145 students (62.8%) opposed to 86 different types of workers (37.3%). As of financial income, 133 consumers (57.6%) do not have income while 82 respondents (35.5%), with 16 individuals (6.9%) preferring not to answer.

6.2. Listener Profile

Regarding the importance of music, listeners consider it as very high (mean=6.07), with an overall positive level. As far as how frequently was music being listened, frequency points towards constantly (mode=7), but very frequently is the average result (mean=6.21). Immediately after, respondents were asked how many hours a day did this happen, and the answers showed greater difference: although more than 4 hours was the most frequently selected answer (mode=3), the average was between 3 to 4 hours (mean=3.62).

The devices where people most listen to music, with a descendent order of preference, are the mobile phone, computer, radio, tablet, CD/Vinyl record player. Other used devices that were noted are minor music player devices such as the iPod, MP3 player, television or Smart TVs and the use of consoles (Playstation allows users to install Spotify as an app on the system, enabling music streaming while playing a video game). The registered ranking was (1=Mobile Phone, 2=Computer, 3=Radio, 4=Tablet, 5=CD/Vinyl record player and 6=other).

6.3. Music Streaming Platform's insights

In Portugal, there are a several music streaming platforms. Therefore, two distinct questions were made: firstly, what music streaming platforms were used by each respondent (making it a multiple-choice answer), being followed by a second question about what the most preferred platform is.

Within this study's sample, Youtube is the most used service, collecting 215 checks, followed right after by Spotify with 205. However, the remaining services share a relatively small number of users, with Soundcloud having 31 listeners, Youtube Music 28, Apple Music 15, Tidal 7 and Amazon Music with only 2 users. None of the participants use Deezer or Napter's service. When asked what the preferred music streaming platform of all Spotify came as the chosen one, with 153 definitive answers, Youtube with 69, Apple Music 4, Youtube Music 3 and in lastly, Soundcloud and Tidal share 1 single listener as their favourite platform.

The platforms were noted to possess a good look (mean=6.23). When comparing the top two platforms, it is possible to highlight Spotify's preference over Youtube's. In the

first, answers almost average between good and very good, while in the latter its mainly defined by good.

On streaming platforms, again a multiple-choice question, the type of content that was most sought after was music (231), podcasts (138), user generated content (40), audiobooks (11) and tutorials (1).

About half of the sample (51.1%), 118 respondents are free users, contrasting with 96 premium subscribers (41.6%). 17 individuals (7.4%) stated they were premium in the past, but not anymore. The following table extends this information in detail (Table VII).

Table VII. Distribution of the types of users on their elect services

		Music Streaming Platform (N)						
		Spotify	Youtube	Apple Music	Soundcloud	Tidal	Youtube Music	Total
Type of user (N)	Premium	89	2	4	0	1	0	96
	Free	50	64	0	1	0	3	118
	Premium Before	14	3	0	0	0	0	17
	Total	153	69	4	1	1	3	231

Note: Own elaboration.

Reasons as to why the subscription was cancelled were “I no longer want to pay”, “The cost was too high”, “I use Spotify on the computer, it wasn’t worth having the premium service, since I can freely choose what song I want to listen to”, “the premium trial was over, and I did not feel the need to upgrade”, “Not worth it” and the increase in price for “I’m no longer a student” and a curious answer stated that “With so much supply, might as well change to the one that is the cheapest”. The idea of no longer being able to use the student discount, end of the trial and not seeing value in premium were the most stated answers. Premium users unlocked a unique question in the questionnaire, where 59 answers state that as a premium user, they used less frequently other music streaming platforms, 16 remained using different services and 21 stopped using the alternatives.

When asked to define the importance for each motivation while using music streaming services, the most important motivation is Ubiquity (Mean=6.48), followed by obtained Satisfaction (Mean=6.19), Discovery (Mean=5.86), Social and Personalization

(Mean=5.22), Perceived Value of the free and premium (Mean=4.91) and lastly, Exclusivity (Mean=4.23).

The Inter-Item Correlation Matrix for Discovery was created (Table VIII) to address previous literature, regarding the connection between high prediction accuracy or high track similarity into high user satisfaction or an increased adoption of the service.

Table VIII. Inter-Item Correlation Matrix for Discovery

Inter-Item Correlation Matrix for Discovery						
Item	Liking new songs	Songs fit music taste	Discover new artists	Recommended songs are good choices	Musical taste expanded	Awareness of new releases
Liking new songs	1.000	0.630	0.580	0.665	0.412	0.204
Songs fit music taste	0.630	1.000	0.472	0.668	0.373	0.159
Discover new artists	0.580	0.472	1.000	0.561	0.600	0.282
Recommended songs are good choices	0.665	0.668	0.561	1.000	0.507	0.298
Musical taste expanded	0.412	0.373	0.600	0.507	1.000	0.309
Awareness of new releases	0.204	0.159	0.282	0.298	0.309	1.000

Note: Own elaboration.

According to the Matrix for Discovery's items, liking the new recommended tracks, tracks fitting one's musical taste and the recommendation system making good choices achieved a positive correlation. In the Correlation Matrix of the model (Appendix 8), Satisfaction is positively correlated to Discovery, but had a negative relation with Ubiquity. Usage frequency and number of hours on listening to music were positively related to the Social index.

When asked if users were satisfied, the answer is positive (mean=6.27), with premium users agreeing more with the affirmation (mode=7) than free users (mode=6). The music streaming platforms users somewhat agree that the services they use exceed their expectations (mean=4.76). Both types of users also agree on advertisement disturbing the music listening experience (mean=6.24), with free users slightly being more vocal on the matter. On being loyal to the music streaming platform, users somewhat agree on it

(mean=5.31) and the more hours listeners stream, the more evident this loyalty is. Premium users unlocked a unique question in the questionnaire, where 59 answers (61.5%) state that as a premium user, they used less frequently other music streaming platforms, 16 (16.7%) remained using different services and the remaining 21 (21.9%) stopped using the alternatives.

6.4. Hypotheses Testing

The first Research Hypothesis, H1, hypothesizes a connection between motivations and the adoption of different music streaming platforms. According to the arguments previously presented, the analysis was supported on the nonparametric test Kruskal-Wallis H (Sarstedt & Mooi, 2019). Table IX shows the statistical results on the motivations.

Table IX. Kruskal-Wallis H – Motivations in the Adoption of a Platform

	Test Statistics[a,b]					
	Discovery	**Satisfaction**	**Ubiquity**	**Social & Personalization**	**Exclusivity**	**Perceived Value**
Kruskal-Wallis H	1,724	11,708	9,583	3,856	5,815	6,083
df	2	2	2	2	2	2
Asymp. Sig.	0,422	0,003	0,008	0,145	0,055	0,048

a. Kruskal Wallis Test
b. Grouping Variable: Adopting a music streaming platform
Note: Own Elaboration

The results (Table IX and Appendix 6) show that the differences are statistically significant when it comes to influence of the Satisfaction (K-W (2) =11.708; p=0.003), Ubiquity (K-W (2) =9.503; p=0.008) and Perceived Value (K-W (2) =6.083; p=0.048) motivations on choosing different music streaming platforms. Due to a low user distribution in the studied sample, Soundcloud, Tidal, Apple Music and Youtube Music were integrated into a single group called “Other” platforms. This allows for a simpler interpretation of the results. Satisfaction manifests itself with the highest value for Spotify, being followed by Youtube and then Other (almost sharing the same mean rank). Ubiquity scores the highest value with Other, lowering progressively for Spotify and lastly Youtube. Perceived Value tops with Spotify, Other (being closely tied) and then Youtube. This way, H1 is not rejected for Satisfaction, Ubiquity and Perceived Value, while not supported for the remaining motivations.

The second and third Research Hypotheses, H2 and H3, hypothesize a connection between motivations and user characteristics in influencing premium conversion. In accordance with what was said, the analysis is supported by a Binary Logistic Regression (Sarstedt & Mooi, 2019). In it, the dependent variable corresponds to being a premium user, while the independent variables are the six motivations and user characteristics.

The amount of variation in the dependent variable explained by the model is provided by the Cox & Snell R Square and Nagelkerke R Square values (Pallant, 2016). Therefore, 67.3% and 90.6% of the variability is explained by the total set of variables of the model. The Hosmer and Lemeshow Test, when presented with a significance value higher than 0.05 suggests the model is fit (Pallant, 2016) and indeed it is. It classifies with a 95.2% accuracy the cases of subscribing to the premium service. All the results can be found on Appendix 7. Table X presents the significant variables in the Binary Logistic Regression model.

Table X. Significant Variables in the Model

Motivations	B	Wald	Sig.
Perceived Value	3.212	13.874	0.000
Ubiquity	5.720	20.404	0.000
Satisfaction	-1.182	3.947	0.047
Age	-1.841	5.962	0.015
Occupation	0.872	5.516	0.019

Note: Own elaboration.

The results reveal that only few motivations and user characteristics influence premium conversion. The motivations are Perceived Value (B=3.212: p=0.000), Ubiquity (B=5.720; p=0.000), Satisfaction (B=-1.182; p=0.047) and user characteristics Age (B=-1.841; p=0.015) and Occupation (B=0.872; p=0.019). Therefore, H2 is not rejected for Perceived Value, Ubiquity and Satisfaction, while rejected for the remaining motivations. Additionally, H3 is not rejected by Age and Occupation, and rejected for the other user characteristics.

The following Table XI presents the results for the study's Research Hypotheses.

Table XI. Research Hypotheses Results

Research Hypotheses	
Q1 Impactful Motivations on Platform Adoption	
H1: The motivations influence the different platform adoption.	Hypothesis partially rejected
H1a: Discovery influences the different platform adoption.	Rejected
H1b: Satisfaction influences the different platform adoption.	Not Rejected
H1c: Ubiquity influences the different platform adoption.	Not Rejected
H1d: Social & Personalization influence the different platform adoption.	Rejected
H1e: Perceived Value influences the different platform adoption.	Not Rejected
H1f: Exclusivity influences the different platform adoption.	Rejected
Q2 Motivations and User Characteristics that lead to Conversion	
H2: The motivations influence premium conversion.	Hypothesis partially rejected
H2a: Discovery influences premium conversion.	Rejected
H2b: Satisfaction influences premium conversion.	Not Rejected
H2c: Ubiquity influences premium conversion.	Not Rejected
H2d: Social & Personalization influence premium convserion.	Rejected
H2e: Perceived Value influences premium conversion.	Not Rejected
H2f: Exclusivity influences premium conversion.	Rejected
H3: The user characteristics influence premium conversion.	Hypothesis partially rejected

6.5. Results Discussion

The result discussion is separated in two perspectives for a better interpretation: choosing a music streaming platform and converting to the premium service.

According to the results, music listeners are influenced by satisfaction, ubiquity and perceived value, defining these as significant motivations for consumers to distinguish music streaming services. When adopting a new platform and before a user ever considers going premium, usually this individual starts off as a free user. In this context, satisfaction can be interpreted in the way that every consumer expects to be pleased when trying out a new service. Therefore, it's possible to theorize a connection with the previous findings by Jongbum Kim et al. (2018), Mäntymäki & Islam (2015) and Mäntymäki et al. (2020) regarding satisfaction being important for free users. Furthermore, it may influence choosing a new platform, taking into consideration the strong influence satisfaction has on continuance intention (Jongbum Kim et al., 2018).

Companies strategize in a high value free version and premium version with distinct characteristics (Gu et al., 2018; Jongbum Kim et al., 2018; Lin et al., 2013; Wagner et al., 2014), thus suggesting perceived value as another motivation in choosing a platform that has benefits new users notice. This aligns with Hamari et al. (2020) because the service

must be attractive enough for newcomers, but not perfect so that consumers want to upgrade, which is freemium's ultimate goal (Kumar, 2014; Niemand et al., 2019).

Moreover, ubiquity comes in as a stimulus that music streaming services have when comparing to other formats to listen to music, reinforcing the findings about usability, functional utility, flexibility and playback diversity by Krause & Brown (2019). Additionally, this motivation is key in defining music streaming services (Hagen, 2016), and so this result can be further understood as consumers are attentive on how ubiquitous different music streaming platforms are. Companies can manipulate ubiquity of their service in different ways. For example, a free user on Youtube can't continue to stream the music video while the cell phone is blocked, meaning that music is only played with the device on. On the other hand, premium users are enabled to stream with the phone locked or unlocked. Spotify instead disables the ability to choose any song for a free user on mobile, somewhat limiting the service's ubiquitous quality. Soundcloud simply limits the free user's musical catalogue. These different strategies alter the ubiquitous quality a music streaming service is gifted with, possibly impacting the decision to use the service or another one.

Some studies were dedicated to motivations or reasons as to why music listeners convert to premium (Mäntymäki & Islam, 2015; Mäntymäki et al., 2020). The results suggest that the motivations perceived value, ubiquity, satisfaction and user characteristics age and occupation influence premium conversion.

Regarding satisfaction, this motivation presents an interesting result that replicates what was suggested by previous literature (Hamari et al., 2020; Rahmansyah & Hati, 2020): Satisfaction does impact a premium conversion, but negatively (B=-1,182). In other words, the greater the satisfaction of a free user, the less likely premium conversion should occur, according to the model. The finding makes sense, because if the free user is satisfied with the service, there are no reasons to upgrade.

The fact that perceived value presents itself as a positive influence in conversion suggests that consumers view the premium service as a high value offer, compared to the basic one, successfully differentiating the service in accordance with the business model's strategy (Gu et al., 2018; Lin et al., 2013; Wagner et al., 2014). Creating distinct and attractive premium features, as recommended by Jongbum Kim et al. (2018), was proven

to originate an offer with value for money because 41.6% of the questionnaire's sample are premium users. The freemium's main goal is premium conversion (Garrahan et al., 2015; Kumar, 2014; Mäntymäki et al., 2020) and in this study's findings, its proposed that Spotify's users perceive premium highly, in contrast to Youtube whose users are mainly free.

Discovery is statistically non-significant regarding conversion, indirectly posing a contradiction on Mäntymäki et al. (2020) finding's on keeping the subscription. The same conditions apply to Social and Personalization motivations. This could be easily justified by the fact that there are no changes or upgrades on how music is recommended, personalization and social options, regardless of the type of user (Oestreicher-Singer & Zalmanson, 2013).

Finally, ubiquity influences positively conversion. Since exclusivity (a list of premium perks) were assigned as statistically non-significant, ubiquity seems to be the main reason for upgrading the service, confirming previous results and retaining premium users (Mäntymäki & Islam, 2015; Mäntymäki et al., 2020). Just like the results suggest, this motivation is key in defining music streaming services (Hagen, 2016) and differentiation strategies deployed by businesses regarding the service's version (Mäntymäki et al., 2020). In practical terms, premium users value their ability to choose any song, at any point in time. According to the study, Spotify premium users most likely value listening to their preferred song in that moment or via offline access, while free are unable to on mobile devices or offline stream said track.

As of user characteristics, age negatively affects the premium purchase, which translates to the older the user, the more likely it's a free user. This result might have shown up due to the high percentage (86.6%) of young individuals, 18-25 years old, in the sample. On the other hand, occupation has a positive effect, which may be explained by the same comment on age and a possibility that justifies this result is the existence of the Spotify Premium Student alternative aligning with the student respondents (62.8%). These findings regarding user characteristics find support from what was suggested in previous literature, regarding both types of users having distinct demographics (Anderson, 2009; Pujol, 2010).

Besides music streaming platforms adoption and premium purchase motivations, this study also endeavors on addressing other events that take place when using these services. The answers in the unique question for the users who stopped being premium greatly reflect on the importance of offering a limited time trial of the premium service and the effectiveness of different pricing models like the student discount for Spotify (Statista, 2021), further emphasizing premium sales promotions (Palazon & Delgado-Ballester, 2013). In the same question, participants commonly reported that the service was not worth acquiring after the trial expired, which may be interpreted as a lack of perceived value motivation, by these users. This provides answers to Mäntymäki & Islam (2015) on why premium is discontinued.

A challenge faced by these services is the generation of personal playlists (Schedl et al. 2018), because its unsure to know to what extent prediction accuracy leads into higher user satisfaction (Jones, 2010; Lee et al., 2011). The findings suggest that the music platforms indeed succeed with its algorithms, due to the positive mean values in the items regarding new music discovered by the recommendations and a positive Inter-Item Correlation between these items. In practical terms, this suggests that good recommendations lead to increased satisfaction in the service, confirming previous literature (Cunningham et al., 2006; Garcia-Gathright et al., 2018; Lee et al., 2011). Ubiquity was found to be negatively correlated to satisfaction: despite having limited streaming options, compared to their premium counterparts, free users remain satisfied. The conclusions from Krause & North (2017a, 2017b) regarding positive listening experience would seem contradicting at first, but since satisfaction plays a negative role in conversion and ubiquity is important, an unsatisfied free user would be motivated (by ubiquity) to upgrade and end more satisfied as a result. The social motivation found accordance with Oestreicher-Singer & Zalmanson (2013) regarding the effect of judgment on the free/premium version and the weakest positive correlation was the sense of belonging in a community. Personalization features recorded positive levels of importance by the respondents, specially highlighting the ability to personalize playlists and checking others music activity. Although it is important to remind that nor social or personalization motivations are critical in the adoption or premium conversion, suggesting that these features are welcome, but actually not that important for consumers.

7. CONCLUSIONS, LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

7.1. Conclusions

The recent evolution of technology changed the way humans listen to music (Hargreaves & North, 1999) and opened a sea of opportunities for new business models to thrive (Veit et al., 2014). Music streaming is the new tendency (Statista, 2020c; Statista, 2021) and freemium music streaming platforms are keen on it. Therefore, the premise of this research was to study motivations when using these platforms in two perspectives. The first being what motivations influence different platform adoption and what motivates users to purchase the premium, since freemium's main goal is premium conversion. A round up of the previous literature dedicated to motivations on this topic was made, resulting in the construct collection that compose this study, alongside other user characteristics.

The conclusions of this study highlight ubiquity, perceived value and satisfaction as driving motivations, alongside the user characteristics age and occupation, as significant to the proposed research questions. The findings suggest that the companies who own these services should maintain a high value, balanced offer, for both free and premium (Gu et al., 2018; Lin et al., 2013; Wagner et al., 2014). This emphasizes the challenge these companies have while managing satisfaction between the two types of users and the creation of a distinguishable service, with a high value offer for its consumers. Special highlight must be given to the balance of features, since a free user must be attracted and pleased enough with the basic option, but not totally satisfied, so that intentions to upgrade motivate the consumer, aligning with freemium's main goal (Garrahan et al., 2015; Jiwhan Kim et al., 2017; Mäntymäki et al., 2020; Wagner et al., 2014). Streaming inherits a ubiquitous quality, just like these platforms, and is also a motivator that consumers are looking forward to when adopting a new platform or to improve their experience with premium. Age and occupation also impact motivation, theorizing a connection that premium promotions, like the student discount, play an important role in premium conversion.

7.2. Academic and Practical Contributions

From an academic perspective, this dissertation further increases the knowledge on motivations under UGT in the music streaming context. More specifically, as said before, it endeavours on two perspectives: service adoption and premium purchase motivations, previously studied (Krause & Brown, 2019; Mäntymäki et al., 2020). These services were distinguished by ubiquity, perceived value and satisfaction motivations: users seek platforms with expectation and that permits for on-demand streaming. Satisfaction needs to be balanced, because free users won't convert into premium if their needs are met.

The managerial contributions provide insights to companies about what drives consumers in the differentiation of these services and on the motivations that lead into premium subscription. Both previous literature (Gu et al., 2018; Lin et al., 2013; Wagner et al., 2014) and the results reinforce that creating a high value free and premium version of the service pose relevancy. Freemium's unique nature allows businesses to strategize and balance the number of features available for both versions (Hamari et al., 2017; Mäntymäki & Islam, 2015; Wagner et al., 2014) and ubiquity is one of the drivers that motivate consumers. Likewise, promotion and trials play a decisive role on attracting consumers to go premium (Palazon & Delgado-Ballester, 2013; Statista, 2021). The strategies involved in how users control their music (ubiquity) can also be worked on, as these are vital for premium users (Mäntymäki et al., 2020). A different point of view is suggesting companies to develop new premium features for music discovery, social and personalization aspects, as these lack differentiation for free or premium. Ultimately, this poses as an opportunity to further increase the reasons to upgrade. Lastly, satisfaction must be balanced carefully, offering a music experience that any user can enjoy and still generate the desire to convert to premium.

7.3. Limitations of the Study

While carrying out this research, a few limitations were noted. The use of a non-probability sampling technique is prone to bias and influence beyond the researcher's control (Saunders et al., 2016), which may result in not yielding a representative sample (Sarstedt & Mooi, 2019). Moreover, the sample doesn't represent older ages enough, nor users in different music streaming platforms. Consequently, some comparisons were unable to be performed.

The Satisfaction is solemnly measured by 1 item, possibly conditioning the results. Also, some low communality value items weren't removed. Although, these were kept since their construct showed a Cronbach's Alpha coefficient higher than 0,7 and for being present in the revised literature.

The findings of the studies regarding UGT approach assume that individuals are self-aware enough of their needs, but this fact can't always be confirmed (Londsdale & North, 2011; Ruggiero, 2000), as there are people that have a poor ability to index media gratifications (McGuire, W. J., 1974).

The suggestion for the development of new premium features on music discovery, social and personalization features may require an investment on R&D of these perks, not taking into consideration the budget and costs of doing so (Jiwhan Kim et al., 2017).

7.4. Suggestions for Future Research

As suggested by Krause & Brown (2019), new research could be made upon this study's findings and expand the suggested motivations under UGT to endeavour on the reasons that lead to different platform adoption and premium conversion. A construct studied in previous literature (Jiwhan Kim et al., 2017; Mäntymäki et al., 2020; Niemand et al., 2019) that is absent in this research is price, and could be incorporated in the future.

Since age was found to negatively lead to premium conversion, it would be interesting to endeavour if younger consumers were more keen to stream, while older consumers preferred more traditional ways of listening to music. This could provide insight on a service's user population and the opportunity to develop strategies accordingly.

Future studies could research the studied motivations on another freemium context, such as free-to-play video games, or different music formats. Additionally, future research could apply probability sampling methods and seek a broader coverage of age and platform user distribution, free and premium.

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APPENDICES

Appendix 1. Questionnaire

1.1. Importance of Music

1. Qual a importância da música para si?

1 = Inexistente	2 = Muito baixa	3 = Baixa	4 = Nem alta nem baixa	5= Alta	6 = Muito alta	7 = Total
○	○	○	○	○	○	○

2. Com que frequência ouve música?

1 = Nunca	2 = Muito raramente	3 = Raramente	4 = Às vezes	5 = Frequentemente	6 = Muito Frequentemente	7 = Constantemente
○	○	○	○	○	○	○

3. Por dia, aproximadamente quantas horas ouve música?

- ○ Menos de 1 hora
- ○ 1 hora
- ○ 2 horas
- ○ 3 horas
- ○ 4 horas
- ○ Mais de 4 horas
- ○ Não

4. Onde ouve música? (Ordene a sua resposta de modo a que 1. corresponde ao dispositivo onde mais ouve música, e 6. o que menos utiliza para ouvir música)

Computador	Tablet
Telemóvel	Leitor de CDs/Vinil
Rádio	Outro. Qual?

5. Usa plataformas de *streaming* de música?

- ○ Sim
- ○ Não

6. Qual/Quais?

- ☐ Spotify
- ☐ Apple Music
- ☐ Soundcloud
- ☐ Tidal
- ☐ Napster
- ☐ Youtube
- ☐ Youtube Music
- ☐ Deezer
- ☐ Amazon Music
- ☐ Outra. Qual?

7. Com base na resposta anterior, **qual a plataforma de *streaming* de música que mais utiliza?**

- ○ » Spotify
- ○ » Apple Music
- ○ » Soundcloud
- ○ » Tidal
- ○ » Youtube
- ○ » Youtube Music
- ○ » Deezer
- ○ » Amazon Music
- ○ » Napster
- ○ » Outra. Qual?

8. Possui a subscrição *Premium* desse/s serviço/s?

- ○ Sim
- ○ Não
- ○ Já tive *Premium* no passado, mas agora não

9. Porque deixou de utilizar a versão *Premium* da plataforma?

10. Uma vez que é um utilizador *Premium*, **continua a utilizar as outras plataformas de *streaming* de música?**

- ○ Sim
- ○ Sim, mas com menos frequência

11. Que tipo de conteúdo procura nas plataformas de *streaming*? (Pode selecionar mais do que uma opção)

- ☐ Música (singles, álbuns, mixtapes, playlists)
- ☐ Podcasts
- ☐ Audiobooks
- ☐ User Generated Content (por exemplo, remixes não oficiais)
- ☐ Outro. Qual?

1.2. Importance of Motivations

12. Considerando a plataforma que utiliza mais frequentemente, indique qual o grau de concordância de cada uma das seguintes frases.

Para mim é importante a/o ...

	1 = Discordo fortemente	2 = Discordo	3 = Discordo um pouco	4 = Não concordo nem discordo	5= Concordo um pouco	6= Concordo	7=Concordo fortemente
Descoberta de nova música	○	○	○	○	○	○	○
O usufruto (ou satisfação) **que obtenho da plataforma de *streaming***	○	○	○	○	○	○	○
Ubiquidade (ouvir música quando se quer, e onde se quer)	○	○	○	○	○	○	○
Personalização de música e conexão social com outros	○	○	○	○	○	○	○
Exclusividade (benefícios de ser utilizador *Premium* e acesso a conteúdo não disponível noutras plataformas)	○	○	○	○	○	○	○
Existirem diferenças entre o *Premium* e a versão *Free*	○	○	○	○	○	○	○

1.3. Motivation Evaluation

13. Considerando a plataforma que utiliza mais frequentemente, indique a sua concordância com as seguintes afirmações relativas à **descoberta de nova música**.

	1 = Discordo fortemente	2 = Discordo	3 = Discordo um pouco	4 = Não concordo nem discordo	5= Concordo um pouco	6= Concordo	7=Concordo fortemente
Gosto das novas músicas que me são recomendadas.	○	○	○	○	○	○	○
As músicas que me são recomendadas encaixam com o meu gosto musical.	○	○	○	○	○	○	○
Descubro novos artistas com base na música que me é recomendada.	○	○	○	○	○	○	○
Considero que as recomendações da plataforma são boas escolhas.	○	○	○	○	○	○	○
O meu gosto musical expandiu-se graças às recomendações da plataforma.	○	○	○	○	○	○	○
Fico a par dos novos lançamentos de artistas que sigo.	○	○	○	○	○	○	○

15. Como avaliaria a/o ... da plataforma?

	1 = Muito má	2 = Má	3 = Um pouco má	4 = Nem boa nem má	5 = Um pouco boa	6 = Boa	7 = Muito boa
Versão *Free*	○	○	○	○	○	○	○
Versão *Premium*	○	○	○	○	○	○	○
Look (aparência) **e funcionalidades** da plataforma	○	○	○	○	○	○	○

16. Considerando a plataforma que utiliza mais frequentemente, indique a sua concordância com as seguintes afirmações relativas à **ubiquidade**.

	1 = Discordo fortemente	2 = Discordo	3 = Discordo um pouco	4 = Não concordo nem discordo	5= Concordo um pouco	6= Concordo	7=Concordo fortemente
Consigo ouvir música onde quero.	○	○	○	○	○	○	○
Consigo ouvir música quando quero.	○	○	○	○	○	○	○
Oiço música sem interrupções.	○	○	○	○	○	○	○
Oiço música no dispositivo que prefiro no momento.	○	○	○	○	○	○	○
Tenho controlo sobre o conteúdo (música, podcasts, etc) **que oiço.**	○	○	○	○	○	○	○
Considero que usar uma plataforma de *streaming* de música é uma alternativa a transferir música manualmente.	○	○	○	○	○	○	○

14. Considerando a plataforma que utiliza mais frequentemente, indique a sua concordância com as seguintes afirmações relativas às **diferenças entre a versão *Free* e a versão *Premium***.

	1 = Discordo fortemente	2 = Discordo	3 = Discordo um pouco	4 = Não concordo nem discordo	5= Concordo um pouco	6= Concordo	7=Concordo fortemente
Considero que a subscrição *Premium* traz benefícios.	○	○	○	○	○	○	○
Considero que compensa subscrever ao serviço *Premium*.	○	○	○	○	○	○	○
Considero as funcionalidades do *Premium* úteis.	○	○	○	○	○	○	○
Considero as funcionalidades da versão *Free* da plataforma satisfatórias.	○	○	○	○	○	○	○
A versão *Free* da plataforma é diferenciada da versão *Premium* da plataforma em termos de funcionalidades.	○	○	○	○	○	○	○
Considero que as funcionalidades da plataforma entre diferentes dispositivos são iguais.	○	○	○	○	○	○	○
O custo da subscrição do *Premium* é adequado, tendo em conta os benefícios que traz.	○	○	○	○	○	○	○

17. Considerando a plataforma que utiliza mais frequentemente, indique a sua concordância com as seguintes afirmações relativas ao **usufruto da plataforma**.

	1 = Discordo fortemente	2 = Discordo	3 = Discordo um pouco	4 = Não concordo nem discordo	5= Concordo um pouco	6= Concordo	7=Concordo fortemente
Gosto de utilizar esta plataforma de *streaming* de música.	○	○	○	○	○	○	○
Utilizar esta plataforma de *streaming* de música excede as minhas expetativas.	○	○	○	○	○	○	○
Considero que os anúncios incomodam a minha experiência.	○	○	○	○	○	○	○
Considero-me leal a esta plataforma de *streaming* de música.	○	○	○	○	○	○	○

18. Considerando a plataforma que utiliza mais frequentemente, indique a sua concordância com as seguintes afirmações relativas à **personalização e componentes sociais.**

A plataforma de *streaming* de música ...

	1 = Discordo fortemente	2 = Discordo	3 = Discordo um pouco	4 = Não concordo nem discordo	5= Concordo um pouco	6= Concordo	7=Concordo fortemente
... permite-me criar e personalizar *playlists*.	○	○	○	○	○	○	○
... permite-me editar o meu perfil.	○	○	○	○	○	○	○
... permite-me fazer upload, de forma fácil, de música ou outro tipo de conteúdo.	○	○	○	○	○	○	○
... está conectada com outras redes sociais.	○	○	○	○	○	○	○
... permite-me partilhar as minhas músicas favoritas com outros.	○	○	○	○	○	○	○
... permite-me ver a atividade de outros utilizadores.	○	○	○	○	○	○	○

19. Considerando a plataforma que utiliza mais frequentemente, indique a sua concordância com as seguintes afirmações relativas à **personalização e componentes sociais.**

	1 = Discordo fortemente	2 = Discordo	3 = Discordo um pouco	4 = Não concordo nem discordo	5= Concordo um pouco	6= Concordo	7=Concordo fortemente
A opinião dos meus amigos, relativos à plataforma de *streaming* de música, são importantes para mim.	○	○	○	○	○	○	○
A opinião dos meus amigos, relativo à versão *Free* ou *Premium* da plataforma de *streaming* de música é importante para mim.	○	○	○	○	○	○	○
Sinto que pertenço e que estou ligado a uma comunidade, na plataforma de *streaming* de música.	○	○	○	○	○	○	○

Por fim, 21. Algum tópico relativo à sua escolha de plataformas ou motivos para subscrever ao *Premium* não foi abordado? (Não é obrigatório responder a esta questão)

1.4. Demographic Information

Caraterização sociodemográfica dos participantes

22. Género:

- ○ Feminino
- ○ Masculino
- ○ Outro
- ○ Prefiro não responder

23. Idade:

- ○ 18-25
- ○ 26-35
- ○ 36-45
- ○ 46-55
- ○ mais de 55 anos

24. Zona de residência:

- ○ Norte
- ○ Centro
- ○ Área metropolitana de Lisboa
- ○ Alentejo
- ○ Algarve
- ○ R. A. dos Açores
- ○ R. A. da Madeira

25. Habilitações literárias (maior nível de escolaridade completo):

- ○ Ensino Básico
- ○ Ensino Secundário
- ○ Licenciatura/Bacharelato
- ○ Mestrado
- ○ Doutoramento
- ○ Outro. Qual?

26. Rendimento individual mensal líquido:

- ○ Não tenho rendimento
- ○ Até 500€
- ○ 501€ a 1000€
- ○ 1001€ a 1500€
- ○ 1501€ a 2000€
- ○ 2001€ a 2500€
- ○ Mais de 2500€
- ○ Prefiro não responder

27. Ocupação principal:

- ○ Estudante
- ○ Trabalhador(a)-estudante
- ○ Trabalhador(a) por conta própria
- ○ Trabalhador(a) por conta de outrem
- ○ Desempregado(a)
- ○ Doméstico(a)
- ○ Reformado(a)
- ○ Outro. Qual?

Appendix 2. Adapted Scales and Items

Construct	Reference Author	Original Items	Adapted Items	Hypothesis
Discovery	Mäntymäki et al., 2020	-	Gosto das novas músicas que me são recomendadas.	H2a
		Using Spotify helps me find music to fit my taste	As músicas que me são recomendadas encaixam com o meu gosto musical.	
		-	Descubro novos artistas com base na música que me é recomendada.	
		Using Spotify provides me with music recommendations that suit my preferences	Considero que as recomendações da plataforma são boas escolhas.	
		Using Spotify allows me to discover artists/bands that I have not been aware of before	O meu gosto musical expandiu-se graças às recomendações da plataforma.	
		Using Spotify helps me stay up to date with new releases by my favorite artistes.	Fico a par dos novos lançamentos de artistas que sigo.	
Ubiquity	Krause & Brown, 2019	It allows me to listen to music wherever I am	Consigo ouvir música onde quero.	H2c
		It enables me to hear the songs I want when I want	Consigo ouvir música quando quero.	
		I listen to music uninterrupted	Oiço música sem interrupções.	
		It allows me to listen to music with the device I prefer at that moment	Oiço música no dispositivo que prefiro no momento.	
		It gives me control over the music	Tenho controlo sobre o conteúdo (música, podcasts, etc) que oiço.	
		-	Considero que usar uma plataforma de streaming de música é uma alternativa a transferir música manualmente.	
Satisfaction	Mäntymäki et al., 2020	Using Spotify is enjoyable/pleasent	Gosto de utilizar esta plataforma de streaming de música.	H2b
		-	Utilizar esta plataforma de streaming de música excede as minhas expetativas.	
		Commercials in Spotify's free subscription are … distracting/intrusive/annoying	Considero que os anúncios incomodam a minha experiência.	
		-	Considero-me leal a esta plataforma de streaming de música.	
Social	Mäntymäki et al., 2020	-	A opinião dos meus amigos, relativos à plataforma de streaming de música, são importantes para mim.	H2d
		-	A opinião dos meus amigos, relativo à versão Free ou Premium da plataforma de streaming de música é importante para mim.	
		-	Sinto que pertenço e que estou ligado a uma comunidade, na plataforma de streaming de música.	
Personalization		-	A plataforma de streaming de música ... permite-me criar e personalizar playlists.	
		-	A plataforma de streaming de música ... permite-me editar o meu perfil.	
		-	A plataforma de streaming de música ... permite-me fazer upload, de forma fácil, de música ou outro tipo de conteúdo.[a]	
		Using Spotify allows me to connect with other people with similar music preferences.	A plataforma de streaming de música ... está conectada com outras redes sociais.	
		Using Spotify allows me to share my favorite music with other people	A plataforma de streaming de música ... permite-me partilhar as minhas músicas favoritas com outros.	
		Using Spotify allows me to see what kind of music other people listen to	A plataforma de streaming de música ... permite-me ver a atividade de outros utilizadores.	
Perceived Value	Wagner et al., 2014	The premium version of MaaS Service has (…) less advantages—many advantages	Considero que a subscrição Premium traz benefícios.	H2e
		I would absolutely consider paying for the premium version of MaaS Service.	Considero que compensa subscrever ao serviço Premium.	
		-	Considero as funcionalidades do Premium úteis.	
		The premium version of MaaS Service (…) unsatisfactory– satisfactory	Considero as funcionalidades da versão Free da plataforma satisfatórias.[a]	
		The free version of MaaS Service is similar to the premium version.	A versão Free da plataforma é diferenciada da versão Premium da plataforma em termos de funcionalidades.	
		-	Considero que as funcionalidades da plataforma entre diferentes dispositivos são iguais.	
		MaaS Service premium is good value for the money.	O custo da subscrição do Premium é adequado, tendo em conta os benefícios que traz.	
Exclusivity	Original Scale	Advertisements	Ouvir música sem anúncios é importante para mim.	H2f
		Streaming Mode	Escolher qualquer música que desejo ouvir, em qualquer dispositivo, e a qualquer hora, é importante para mim.	
	Inspired by the product attributes listed in Jiwhan Kim et al., 2017	-	Dar skips (saltos) ilimitados é importante para mim.	
		-	Qualidade de som é importante para mim.	
		Offline Usage	É importante para mim que a plataforma de streaming de música permita a transferência de músicas para o meu dispositivo.	
		Exclusive Content	Ter acesso ao catálogo completo de música é importante para mim.	

a. Item ommited from the construct due to loading <0,7.

Appendix 3. Descriptive Statistics of the Constructs and respective Items

Construct	Items	N	Mean		Median	Mode	Standard Deviation	
			Item	Index			Item	Index
Discovery	1	231	5.43	5.282	6	6	0.997	0.924
	2		5.44		6	6	1.057	
	3		5.49		6	6	1.258	
	4		5.23		5	6	1.170	
	5		4.84		5	6	1.687	
	6		5.26		6	6	1.439	
Perceived Value	1	231	5.67	5.093	6	6	1.290	1.035
	2		4.62		5	4	1.787	
	3		5.44		6	6	1.330	
	4[b]		5.18		6	6	1.412	
	5		5.49		6	6	1.226	
	6		4.85		5	6	1.714	
	7		4.49		5	4	1.552	
Ubiquity	1	231	5.89	5.800	6	7	1.461	1.069
	2		5.89		6	7	1.365	
	3		4.65		5	7	2.273	
	4		6.15		6	7	1.130	
	5		6.00		6	7	1.273	
	6		6.22		6	7	1.054	
Satisfaction	1	231	6.27	5.645	6	6	0.789	-
	2		4.76		5	4	1.213	
	3		6.24		7	7	1.112	
	4		5.31		6	6	1.444	
Personalization	1	231	6.32	5.568	7	7	0.920	0.901
	2		5.50		6	6	1.292	
	3[b]		4.38		4	4	1.618	
	4		5.19		5	6	1.445	
	5		5.80		6	6	1.21	
	6		5.02		5	6	1.667	
Social	1	231	3.25	3.255	3	1	1.756	1.412
	2		3.10		3	1[a]	1.663	
	3		3.42		4	4	1.661	
Exclusivity	1	231	6.23	6.139	7	7	1.073	0.723
	2		6.47		7	7	0.828	
	3		6.36		7	7	1.024	
	4		6.36		7	7	0.778	
	5		5.14		6	6	1.647	
	6		6.28		7	7	0.970	

a. Multiple modes exist. The smallest value is shown.

b. The item is not included in the Mean Index.

Appendix 4. Preliminary Data Analysis

			Internal Consistency and Reliability					Principal Components Analysis					
			Mean			Item-Total Statistics		KMO and Bartlett's Test			Communalities		Component Matrix[a]
Index	Items	N	Items	Index	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Kaiser-Meyer-Olkin Measure of Sampling Adequacy	Approx. Chi-Square	Sig.	Total Variance Explained (%)	Initial	Extraction	Component
Discovery	1	231	5.43	5.2821	0.810	0.653	0.771	0.828	556.355	0.000	55.518	1.000	0.666	0.816
	2		5.44			0.589	0.780					1.000	0.595	0.772
	3		5.49			0.684	0.755					1.000	0.642	0.801
	4		5.23			0.724	0.749					1.000	0.734	0.857
	5		4.84			0.594	0.784					1.000	0.513	0.717
	6		5.26			0.325	0.839					1.000	0.181	0.425
Perceived Value	1	231	5.67	5.1057	0.671	0.551	0.593	0.794	508.794	0.000	51.675	1.000	0.612	0.782
	2		4.62			0.649	0.538					1.000	0.754	0.868
	3		5.44			0.695	0.551					1.000	0.754	0.869
	4		5.18			-0.235	0.780					-	-	-
	5		5.49			0.416	0.629					1.000	0.370	0.608
	6		4.85			0.203	0.693					1.000	0.090	0.300
	7		4.49			0.580	0.573					1.000	0.521	0.722
Ubiquity	1	231	5.89	5.8001	0.816	0.695	0.761	0.785	610.975	0.000	55.130	1.000	0.685	0.828
	2		5.89			0.700	0.762					1.000	0.689	0.830
	3		4.65			0.637	0.801					1.000	0.590	0.768
	4		6.15			0.642	0.781					1.000	0.586	0.765
	5		6.00			0.609	0.783					1.000	0.535	0.731
	6		6.22			0.350	0.827					1.000	0.224	0.473
Satisfaction	1	231	6.27	5.6450	0.334	0.337	0.162	0.598	50.644	0.000	38.860 25.816	1.000	0.582	0.706 0.29
	2		4.76			0.230	0.203					1.000	0.561	0.725 -0.187
	3		6.24			-0.054	0.504					1.000	0.924	-0.121 0.954
	4		5.31			0.272	0.127					1.000	0.519	0.718 0.065
Personalization	1	231	6.32	5.3694	0.689	0.391	0.665	0.696	212.832	0.000	46.705	1.000	0.404	0.636
	2		5.50			0.515	0.619					1.000	0.444	0.666
	3		4.38			0.278	0.705					-	-	-
	4		5.19			0.461	0.635					1.000	0.408	0.639
	5		5.80			0.515	0.622					1.000	0.529	0.727
	6		5.02			0.442	0.644					1.000	0.55	0.742
Social	1	231	3.25	3.2554	0.781	0.700	0.608	0.640	237.189	0.000	69.859	1.000	0.794	0.891
	2		3.10			0.694	0.620					1.000	0.785	0.886
	3		3.42			0.476	0.848					1.000	0.517	0.719
Exclusivity	1	231	6.23	6.1385	0.744	0.591	0.677	0.797	376.175	0.000	48.164	1.000	0.608	0.780
	2		6.47			0.603	0.687					1.000	0.629	0.793
	3		6.36			0.592	0.678					1.000	0.630	0.793
	4		6.36			0.414	0.728					1.000	0.330	0.574
	5		5.14			0.386	0.778					1.000	0.281	0.530
	6		6.28			0.494	0.706					1.000	0.412	0.642

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Appendix 5. Demographic Data and User Characteristics

Indicator	Answer	N	%
Gender	Female	154	66.7
	Male	74	32.0
	Other	3	1.3
Age	18-25	200	86.6
	26-35	19	8.2
	36-45	3	1.3
	46-55	6	2.6
	> 55	3	1.3
Area of residence	North	8	3.5
	Center	59	25.5
	Lisbon Metropolitan Area	135	58.4
	Alentejo	14	6.1
	Algarve	3	1.3
	Azores	4	1.7
	Madeira	8	3.5

User Characteristics Statistics			
	N	Mean	Mode
Music Importance	231	6.07	6
Music Frequency	231	6.21	7
Music Hours	231	3.62	5 (> 4h)
Ads Intrusiveness	231	6.24	7

Indicator	Answer	N	%
Educational Qualifications	Primary Education	2	0,9
	Secundary Education	79	34,2
	Bachelor Degree	130	56,3
	Masters Degree	19	8,2
	Other	1	0,4
Occupation	Student	145	62,8
	Working Student	18	7,8
	Self-employed	9	3,9
	Employee	51	22,1
	Unemployed	6	2,6
	Other	2	0,9
Financial Income	No income	133	57,6
	< 500€	19	8,2
	501€ - 1000€	36	15,6
	1001€ - 1500€	18	7,8
	1501€ - 2000€	5	2,2
	2001€ - 2500€	4	1,7
	Prefered not to asnwer	16	6,9

Appendix 6. Kruskal-Wallis H Mean Rank Results

Ranks

Motivations	Platforms	N	Mean Rank
Discovery	Spotify	153	119.81
	Other	9	113.61
	Youtube	69	107.86
	Total	231	
Satisfaction	Spotify	153	125.92
	Other	9	96.17
	Youtube	69	96.59
	Total	231	
Ubiquity	Spotify	153	123.07
	Other	9	131.00
	Youtube	69	98.38
	Total	231	

Ranks

Motivations	Platforms	N	Mean Rank
Social and Personalization	Spotify	153	121.96
	Other	9	100.50
	Youtube	69	104.80
	Total	231	
Exclusivity	Spotify	153	123.34
	Other	9	93.06
	Youtube	69	102.72
	Total	231	
Perceived Value	Spotify	153	122.95
	Other	9	122.94
	Youtube	69	99.68
	Total	231	

Appendix 7. Binary Logistic Regression Results

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	55.520a	0.673	0.906

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than ,001.

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	55.520a	0.673	0.906

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than ,001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	5.889	8	0.660

Contingency Table for Hosmer and Lemeshow Test

		Free Observed	Expected	Premium Observed	Expected	Total
Step 1	1	23	23.000	0	0.000	23
	2	23	23.000	0	0.000	23
	3	23	22.994	0	0.006	23
	4	23	22.895	0	0.105	23
	5	22	22.049	1	0.951	23
	6	18	16.668	5	6.332	23
	7	2	4.183	21	18.817	23
	8	1	0.174	22	22.826	23
	9	0	0.033	23	22.967	23
	10	0	0.004	24	23.996	24

Classification Table[a]

Observed			Predicted		
			Type of User		Percentage Correct
			Free	Premium	
Step 1	Type of User	Free	130	5	96.3
		Premium	6	90	93.8
	Overall Percentage				95.2

a. The cut value is ,500

Appendix 8. Correlation Matrix

Correlation Matrix

		Constant	Dis	PV	Ubi	Sat	Pers	Soc	Exc	Imprt of Music	Frequency	Hours of Music	Ads Intru	Gender(1)	Gender(2)	Age	Residence	Education	Income	Occupation
Step 1	Constant	1.000	0.009	-0.073	-0.078	0.034	-0.031	-0.014	0.002	0.007	-0.037	0.009	0.002	-0.994	-0.994	0.028	-0.01	-0.04	0.009	-0.058
	Discovery	0.009	1.000	-0.423	-0.362	0.221	-0.17	-0.075	0.002	-0.076	0.144	0.268	0.103	-0.003	0.002	0.276	0.077	-0.057	-0.21	-0.283
	Perceived Value	-0.073	-0.423	1.000	0.732	-0.349	0.273	-0.019	-0.178	-0.115	0.192	-0.247	-0.088	-0.005	-0.006	-0.423	-0.032	0.189	-0.017	0.553
	Ubiquity	-0.078	-0.362	0.732	1.000	-0.499	0.206	-0.003	-0.133	-0.124	0.181	-0.257	-0.056	-0.006	-0.007	-0.369	-0.083	0.234	-0.028	0.608
	Satisfaction	0.034	0.221	-0.349	-0.499	1.000	-0.536	0.202	0.097	-0.164	-0.088	0.285	-0.14	0.004	0.003	-0.089	0.138	-0.204	0.188	-0.169
	Personalization	-0.031	-0.17	0.273	0.206	-0.536	1.000	0.001	-0.366	0.085	-0.001	-0.079	0.057	-0.004	-0.003	0.064	-0.005	0.285	-0.07	0.262
	Social	-0.014	-0.075	-0.019	-0.003	0.202	0.001	1.000	0.015	-0.146	0.078	0.149	-0.103	0.002	0,000	-0.194	0.107	0.028	0.271	0.124
	Exclusivity	0.002	0.002	-0.178	-0.133	0.097	-0.366	0.015	1.000	-0.176	-0.066	0.061	-0.428	0.002	0.001	-0.15	-0.044	-0.109	-0.038	-0.197
	Importance of Music	0.007	-0.076	-0.115	-0.124	-0.164	0.085	-0.146	-0.176	1.000	-0.453	-0.248	0.162	0.003	0.002	0.32	-0.06	-0.069	-0.093	-0.111
	Music listening Frequency	-0.037	0.144	0.192	0.181	-0.088	-0.001	0.078	-0.066	-0.453	1.000	-0.039	-0.136	-0.003	-0.001	-0.148	0.072	0.128	-0.115	0.207
	Daily hours of music	0.009	0.268	-0.247	-0.257	0.285	-0.079	0.149	0.061	-0.248	-0.039	1.000	0.036	0.001	0.001	-0.031	0.106	-0.007	0.072	-0.196
	Ads Intrusiveness	0.002	0.103	-0.088	-0.056	-0.14	0.057	-0.103	-0.428	0.162	-0.136	0.036	1.000	-0.001	0.002	0.465	-0.225	-0.056	-0.06	-0.136
	Gender(1)	-0.994	-0.003	-0.005	-0.006	0.004	-0.004	0.002	0.002	0.003	-0.003	0.001	-0.001	1.000	1.000	-0.001	0.000	-0.004	0.008	-0.006
	Gender(2)	-0.994	0.002	-0.006	-0.007	0.003	-0.003	0,000	0.001	0.002	-0.001	0.001	0.002	1.000	1.000	0.001	-0.001	-0.005	0.003	-0.005
	Age	0.028	0.276	-0.423	-0.369	-0.089	0.064	-0.194	-0.15	0.32	-0.148	-0.031	0.465	-0.001	0.001	1.000	-0.154	0.049	-0.317	-0.441
	Residence	-0.01	0.077	-0.032	-0.083	0.138	-0.005	0.107	-0.044	-0.06	0.072	0.106	-0.225	0.000	-0.001	-0.154	1.000	0.292	-0.065	0.168
	Education	-0.04	-0.057	0.189	0.234	-0.204	0.285	0.028	-0.109	-0.069	0.128	-0.007	-0.056	-0.004	-0.005	0.049	0.292	1.000	-0.149	0.092
	Income	0.009	-0.21	-0.017	-0.028	0.188	-0.07	0.271	-0.038	-0.093	-0.115	0.072	-0.06	0.008	0.003	-0.317	-0.065	-0.149	1.000	-0.183
	Occupation	-0.058	-0.283	0.553	0.608	-0.169	0.262	0.124	-0.197	-0.111	0.207	-0.196	-0.136	-0.006	-0.005	-0.441	0.168	0.092	-0.183	1.000