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Streaming Platform Adoption Factors: Spotify vs Apple Music

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Abstract: The most common way of listening to music today is through music streaming platforms. These platforms are used worldwide and have made it possible for users to listen to music anywhere. There is, however, a wide choice of streaming platforms, the two most widely used being Spotify and Apple Music. This study aims to answer the following research question: "What factors influence consumers when choosing a music streaming platform, Spotify, or Apple Music?" To answer the research question, three key objectives were defined: to identify the consumer's preference, Spotify or Apple Music; to understand the differences between the perceived usefulness of the two streaming platforms; to understand the differences between the Ease of Use of the two streaming platforms. The main conclusions taken from this study were that a lot of people uses music streaming platforms, and their satisfaction with the platform used is very high, men are more adaptable than women when it comes to information technologies, and the factor that most influences the choice between platforms is whether the application is user-friendly.

Keywords: music streaming platforms, Spotify, Apple Music, music, technology acceptance, TAM.

1 Introduction

Over the years, the way we listen to music has changed and new forms have been created. Currently, music streaming platforms are on the rise and are considered the most used way to listen to music, with the number of subscriptions increasing, in 2022, to a world record of 90 million users (Friedlander, 2022). This service currently offers consumers a catalogue with unlimited access to more than 60 million songs that they can listen to on any device with just one click on play.

Despite all the fuss surrounding the resurgence of vinyl and its highest revenue in 2020 since 1988, around 503 million dollars (Friedlander, 2020), music streaming platforms are still the most convenient and most popular way to listen to music all over the world.

The beginning of the dissemination of music began with MP3, where through file traffic, which compresses the file without loss of audio quality, it was possible to listen

to music free, but illegally. As an attempt to reverse this online illegality, streaming platforms emerged, which at the time had a huge impact on the music industry, as they began to offer consumers music for free and without violating authors' rights laws (Alturas & Oliveira, 2005).

Through streaming platforms, music began to be promoted in a different way than we were used to, users of these platforms can access them in two different ways:

Paying a monthly fee to the platform where you have unlimited access to it, and can even listen to music without being connected to the Internet and without any type of advertisement or advertisements in between songs.

- Not paying a monthly fee, but it will not be possible to listen to music if the user is not connected to the internet and allowing advertising and advertisements in the intervals between songs.

The music streaming market is bigger than ever. According to the 2020 Year-End Report of the RIAA (Recording Industry Association of America) 2020 year-end report, revenues from streaming services revenues increased 13.4% compared to 2019, reaching around 10.1 billion dollars in 2020. In 2021, streaming revenues grew by around 24%, and in the first half of 2022 there was an increase of 10%, representing an increase of US$6.5 billion (Friedlander, 2021, 2022). At the end of 2022, revenues had grown by around 11.5%, representing an annual revenue of 17.5 billion dollars (IFPI, 2023).

There are many music streaming services, such as: Spotify, Apple Music, Amazon Music, Youtube Music, Deezer, among others. The list of services from which we can choose is small; however, there are always considerations that become central to our final choice. Among the biggest names in streaming platforms are Spotify and Apple Music, representing in 2021, 31% and 15% respectively of the market shares of music subscribers (Mulligan, 2022).

Therefore, the present study aims to analyse in detail each of the streaming platforms mentioned above (Spotify and Apple Music) and reflect on what leads the consumer to choose one streaming platform and not the other, as well as the degree of satisfaction that the population feels about the streaming platform they use and the reason that leads them to switch from one streaming platform to another and vice versa.

The theme of this study is based on the perception that the population has regarding streaming platforms, more in line with the perception that consumers have regarding Spotify and Apple Music, since these are the most sought after and used streaming platforms, both worldwide and in Portugal.

The truth is that the use of streaming platforms is increasing drastically, and due to this growing demand, the companies that develop these platforms are constantly investing and evolving to guarantee consumer satisfaction and attract new users.

The research question of this study is: What factors influence consumers when choosing a music streaming platform, Spotify or Apple Music?

To answer the question defined above, the following objectives were outlined:

- Identify the consumer’s preference, Spotify or Apple Music
- Understand the differences between the perceived usefulness between the two streaming platforms.
- understand the differences in ease of use between the two streaming platforms.

2 Literature review

2.1 Music Industry

The music industry is the term used to describe companies and organisations that are linked to music and are one of the most affected by digital transformation. It is a billion-dollar market that has been growing year after year, but with digital transformation the entire value chain of the music industry sector has changed, from record companies to publishers, to the sales format of the product, and even the way we consume it.

The music industry can be described by four fundamental agents, without which it would not exist: the artists who write, compose and perform the music, the publishers who sign the artists, work on their promotion and are also responsible for recording, production and sale of music, service providers and other suppliers, including suppliers of musical instruments and factories that produce music in physical formats, such as vinyl, CDs and even clubs, and finally largely due to innovation technological and digital online distributors that sell music to the end consumer (Wikstrom & DeFillippi, 2016).

The music industry has undergone numerous changes over the years, where new sales formats have gained relevance and others have decreased in sales. Today, streaming is the most predominant service for consuming music, but this was not always the case, as this is the most recent in a huge set of formats that have existed over the years and have lost their notoriety. due to digital transformation.

Vinyl, cassettes, CDs, and MP3s were the physical formats crucial to the growth of the music industry, and for the first time in 20 years, there was a growth in the physical sales market. Revenues increased by 16.1%, corresponding to an increase of US$5 billion. This was driven in part by a recovery in physical retail that had been heavily impacted in 2020 by the COVID-19 pandemic. CD revenues grew for the first time this millennium. At the same time, the recent resurgence of interest in vinyl has continued with very strong revenue growth in 2021 of 51.3% versus 25.9% growth in 2020 (IFPI, 2022).

The phonograph cylinder was where it all began; it was the first creation in the phonographic world, having been created in 1877 by Thomas Edison. This mechanism was a short-lived mechanism, as it only reproduced 3 or 4 times initially, but over time new materials were created that helped to improve it, thus expanding the number of uses.

After Thomas's brilliant creation in 1888, Emil Berliner created a more improved version of the phonograph cylinder, in which a disc was used instead of a cylindrical plate as before.

The vinyl record appeared in 1948 as a replacement for the 78-rpm record, created by Peter Carl Goldmark, but it always had strong competition from cassette tapes, which began mass production in 1964 in Germany but only reached the rest of Europe in 1965. Between 1970 and the mid-1990s, cassette tapes were one of the two most common formats for listening to pre-recorded music, alongside vinyl records. These two caused a tremendous spread of the music industry. The vinyl market reached its peak in the 1980s, but with the arrival of the CD in 1982 there was a decline in sales from then on.

The CD, or as it was called compact disc, was developed in the early 1980s, more specifically in 1982, and was a highly profitable formula, as it was cheaper to manufacture than its predecessor, vinyl, and was easier to manufacture. transport, easier to store, and above all its mass production was more profitable than that of vinyl, as the latter was sold for twice the price, thus increasing profit margins.

However, the end of music sales came to an end with the emergence of the MP3 file and the digital era, the Web. With music in digital format, consumers now had easy access to free online downloadable content and a new technology emerged, the iPod, which was a portable music device from Apple that changed the way consumers listened to music. This change in music consumption was magnified over time, and the profits this sector had since then plummeted, leading to a huge decrease in the sector. MP3 has become the consumer's preferred format for storing and distributing audio, thus passing CDs (Iansiti & Lakhani, 2014). However, due to the illegal nature of downloading music in MP3 file format, which consequently translated into copyright theft, the music industry sector had to start looking for other alternatives.

It took many years for the industry to effectively understand how to attract consumers again. The truth is that because of digital transformation, more and more artists have become less dependent on traditional music players, the reflection of this being numerous bands and musicians starting to distribute their work on their own directly on the Internet, and many of them using social media platforms (Passos & Alturas, 2011; Passos et al., 2012). This autonomy on the part of the artists was only possible with the emergence of new digital tools and platforms that in this way allowed artists to adapt to this new reality. The result of this was the appearance of streaming in the late 1990s and early 2000s not just audio as a video. Despite the delay, a whole new era has emerged, and the main one responsible for this new form was streaming. The streaming music has added great value, providing the consumer with a deeper experience through a subscription model where most, if not the entirety of the catalogue this available worldwide. However, like anything, streaming also had its disadvantages. This for being a rather innovative business has brought a high cost in investment in technology and services with it. Each time the number of streaming subscribers increased, also the expenses of streaming firms increased. The main source of expenses for these streaming platforms was licensing songs, as companies had to pay fees to copyright detectors for what music had legal on their respective streaming platforms.

The drop in physical sales and the new digital era that came with digital transformation brought a new paradigm to the music industry, streaming companies begin to secure their space and extend their share in the market.

2.2 Streaming

Streaming is a digital content distribution technology performed through the Internet without the need for downloads, which allows us to consume movies, series, and songs. It works by downloading and uploading data between a server and a device, whether it is a computer, a tablet, or a smartphone. In practice, the videos or audios are stored in the cloud and automatically played to the user without them being committing a piracy crime associated with downloading files. The content that the same watches and hears

does not occupy any space in the memory of the equipment in which the consumer is using, as the internet is the conductive vehicle of that content from its origin to the final consumer.

There are two types: streaming on demand and the live streaming. In the streaming on demand the movie, the series, the music or even the podcast this saved on a server. It is possible to access it through a website or an application anytime the consumer wants without any restriction if they are connected to the Internet. Live streaming matches the transmission of the content in real time. This has become very famous on social media as the case for Facebook and Instagram is. This is a rather used method also by radios and live tv programs.

The fall in physical sales and the new digital era brought a new paradigm to the music industry. The adoption of streaming services has been one of the most striking evolutions of late.

During the 2000s, music streaming was overpowered by Apple, through its iTunes store. In the late 2000s Youtube began to dominate streaming from the perspective of the video, however in 2006, a new company was created with a disruptive business model, which promised to change the music industry, Spotify, which was a pioneering model of music exclusive streaming.

Music streaming platforms have been posting rapid growth in recent times. According to the MIDiA Research report, music streaming continues to grow strongly with 523.9 million subscribers, representing an increase of about 109.5 million signatures, corresponding to 26.4% compared to 2020. From the largest streaming platforms is to mention Spotify and Apple Music with a market stake of 31% and 15% respectively. Despite Spotify currently leading, it has lost market holdings since 2020 and consequently Apple Music has increased. It is still important to note that Amazon Music once again outperformed Spotify in terms of market participation growth, and this grew 25% compared to 20% of Spotify (Mulligan, 2022).

Tim Paul Thomes is one of the pioneers in addressing the economic issue of online streaming and its impact on the music industry, having published an article on this in June 2011, “An Economic Analysis of Online Streaming: How the Music Industry Can Generate Revenues from Cloud Computing '. In this article, the author investigates the upward business model of streaming services that allow consumers or sign a service that provides free access to the propaganda-funded digital music library or pay a monthly fixed signature to have access to the premium version without propaganda and with some additional advantages (Thomes, 2011).

According to Nguyen et al. (2012), music consumption via streaming does not have a significant impact on CD buy, it complements the purchase of online music, due to the “sampling Effect”, rather being a facilitator of a first contact with online music that, in case you appreciate the consumer, you lead the same to buy the album (Nguyen et al., 2012).

Currently, the focus of industry investors is the enlargement of artists' presence on digital platforms, mainly on streaming platforms, as the industry's main source of income comes from them, with more than 11.5% in comparison with the previous year, reaching €17.5 billion in 2022 (IFPI, 2023).

Spotify is a music, podcast, and video streaming service released on October 7, 2008, developed by the Spotify AB start-up in Stockholm in Sweden. Currently Spotify is available in 177 countries scattered around the world and is available on any iOS, Android and Windows Phone device well as Windows, MacOS and Linux computers. Spotify stands as the foremost digital music streaming service globally, granting users the freedom to indulge in on-demand music listening while fostering the creation and exchange of playlists (Win & Raheem, 2024).

This provides free content, provided with restrictions and filled with advertising between music, while downloading music and streamed streaming quality, as well as music without advertising ranges, are additional resources that require a monthly paid signature. There are currently 4 premium plans: Individual, where only one person has access to the account and you can listen to ad-free music, download the songs and listen to offline and listen to the OnDemand song, the Duo that only the difference for Individual is that as the name says is for two people to enjoy the premium advantages, the Family that can enjoy the advantages of the premium up to 6 people and has an advantage that others don't have, if one of the accounts is for a child it is possible to block certain songs. There is still a package for students that only have access to this discount, college students being this compound by the same as the package that the individual package (Spotify, 2024).

Users can look up by the name of the song either by the artist, album, genre, playlist, or even editor. They can also create, edit, and share playlists and tracks with other users or even share on social networks a song that is addicted.

Spotify is currently the most used streaming service in the whole world having a 31% market stake. There is no risk of this losing his leadership position in the market anytime soon, however there are several music streaming platforms emerging and some existing ones winning market (Mulligan, 2022).

Apple Music is a streaming music and video service developed by Apple, with the service being announced June 8, 2015, and released on June 30 of that same year in 100 countries. This service is compatible with iOS and Android devices, with Apple Watch, HomePod, CarPlay, Apple Tv and more recently there is also support for SmartTVs from Samsung, Amazon Alexa and Sonos (Apple, 2024).

Each user can have access to more than 85 million songs, over 30,000 playlists created by experts, access to their library on any device to listen online or offline, streaming music without advertising, original programs, concerts and unique content, stations of live radio and on demand displayed by artists, space audio with Dolby Atmos, full catalogue in lossless audio and accompaniment of song lyrics.

Apple Music has 3 packages that the consumer can cancel at any time without any inconvenience. The individual package allows the user to enjoy over 100 million songs, streaming advertising, space audio with Dolby Atmos and compatibility with multiple devices, on the other hand the Family package includes everything the individual owns having the PLUS to give unlimited access up to six people each with their personal library. Just as Spotify the Apple Music also has a student package, with that the same advantages as the individual package.

Currently Apple Music is the second-largest leader in the streaming platform market, representing about 15%, a lower percentage than the world leader. Despite the percentage to be low, this every year has grown in the first place (Mulligan, 2022).

2.3 Technology Adoption

The TAM (Technology Acceptance Model) aims to evaluate the behaviour of technology use by analysing the attitudes to the use of IS (Information Systems) from usefulness to ease of use, originally proposed by Davis (1989) assumes that the acceptance of the information system is mostly linked to two key variables:

- Perceived Usefulness (PU), that is the degree to which the consumer believes that the use of a given system will improve its performance.

Perceived ease of use (PEU), that is, the degree to which the user believes that the use of a given system will not involve effort by the part of it.

In addition to these two variables, the TAM also includes: Attitude (A) and behavioural intention (BI). These two variables are influenced by perceived usefulness (PU) and perceived ease of use (PEU) (Venkatesh & Davis, 2000).

This is a model that has been widely used by many researchers in various areas, as the same model is easy to use, is well-deemed and is robust. This can be represented in the diagram in Figure 1 (Davis et al., 1989).

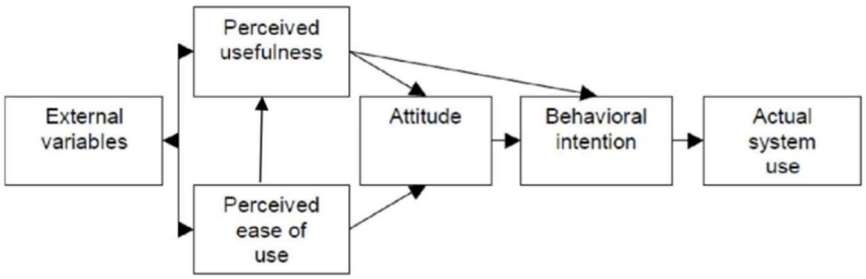


Figure 1Technology Acceptance Model (Davis, Bagozzi, & Warshaw, 1989)

When consumers are approached with a new technology, several factors influence their decision on how they will use technology. However, despite the fact that this model has recurring use, several authors have investigated its limitations. Second (Alturas, 2021) TAM has several limitations such as:

The results obtained are based on subjective measures, thus influencing the conclusions and making it impossible to measure the acceptance of a system.

Variables and relationships present in the model do not allow us to explain all associated phenomena, due to the complexity of the processes. This is because participation of people involves several factors that interfere with their perceptions, such as the specific technical ability of the user, the context and the space in which the person makes use.

Behaviour cannot be regarded as a final goal, but rather as a means to achieving an end. Also, the intent to use cannot be sufficiently representative of actual use, since the

period between intent and adoption may be affected by a set of uncertainties or other factors that may influence an individual's decision in the adoption of a technology.

To reduce these limitations, Venkatesh and Davis, in 2000 created the TAM 2 model and subsequently in 2008 Venkatesh and Bala created TAM 3. In these two new versions, it was already possible to check the determining factors, and it could thus broaden the explanation for the perception of utility and the behavioural intent of use, two determining groups was further added in the perception of ease of use: Anchors and Adjustments (Alturas, 2021). It is possible to conclude that the adoption of certain technologies occurs if the same is identified as beneficial (Amin et al., 2012).

In 2006 a similar study about the acceptance of file sharing technologies by music consumers found that perceived usefulness is related to the consumer's behavioural intention to download music. Also, found that behavioural intention was strongly related to actual use. This confirms the original Davis model relating attitude, behaviour, and actual usage of technology, specifically related to downloading music on the Internet (Amoroso & Guo, 2006).

In a more recent study, it was possible to find that perceived ease of use, subjective norms and technology anxiety affect intention to use online streaming services. Self-efficacy was found to positively affect perceived ease of use and technology anxiety was found to have a negative effect on perceived usefulness. The results also evidenced the moderating role of self-efficacy and technology anxiety (Bhatt, 2022).

In 2022, there were revenue gains in virtually every category and format of music sales, keeping streaming mastering the global revenue assembly. Growth rates on the other hand have been lower than those in previous years, taking out of this fraction the exceptional growth in 2021 partially attributable to a post-pandemia impulse where the gains were much higher than previous years. According to the Statista website, music streaming music revenues increased by 11.5% worldwide compared to the previous year, and although it was a slower growth rate than the previous year (+23, 9%), account for more than 67% of total recorded music revenue, +2% than the previous year, reaching, in 2022, $17.5 billion (Statista, 2023a). It is also worth emphasising that subscription streaming revenues grew by 10.3% worldwide, reaching $12.7 billion in 2022 (IFPI, 2023).

The number of subscriptions paid for streaming platforms has increased from year to year. In 2022 streaming music continued to grow strongly, translating into an increase of approximately 99.3 million signatures compared to the previous year, representing a total of 623.2 million subscribers in 2022 (Mulligan, 2022).

Of the largest streaming platforms that exist in the world is to mention Spotify and Apple Music, with these a market stake of 30.5% and 13.7%, respectively. Despite currently Spotify leading the market, it has been missing stakes since 2020 and consequently Apple Music has increased (Statista, 2023b)

Currently, Spotify has 187.8 million subscribers despite its market share having been declining since the fourth quarter of 2020. However, Apple Music currently has 84.7 million subscribers and, despite its underperformance on the market, has grown from year to year (Mulligan, 2022).

This way it was possible to conclude that music streaming platforms are on the rise and are considered the most used form to listen to music, with the number of signatures

increasing, in 2022, to a world record of 90 million users (Friedlander, 2022). These have a prospecting to continue to grow enormously continuing for many years to be the market leader in the way we currently listen to music. Currently streaming platforms are the world leaders representing in 2022 about 48.3% of the total worldwide revenues from the music recordings (IFPI, 2023).

3 Methodology

As mentioned earlier, in this study is analysed what leads the consumer to choose between Spotify and Apple Music, and to know if the consumer is satisfied with the platform that currently uses and whether it recommends it to others.

To obtain answer to these questions a questionnaire was conducted, with participants aged or older than 18 years who use or not use music streaming platforms, and that could be Spotify, Apple Music or other. However, for this study will only be considered the participants who use streaming platforms and one of two platforms chosen, Spotify or Apple Music. The questionnaire was answered 255 times, however, only were considered as valid responses 179 responses.

The data collection method used was the quantitative methodology survey, through the application of an online questionnaire that was later analysed using the statistical data analysis treatment programme SPSS. This was the chosen method since there were similar studies already performed, because it is the method that suits the most given the sample and, in a way, to be the method that will allow to draw more conclusions. The method of sharing was social media, such as Instagram and WhatsApp, and through sharing/re-routing to other known contacts of friends and family to be easier to share it.

The questionnaire was structured in such a way that at an early stage it was possible to characterise the sample and, subsequently, with the responses given by the respondents, analyse their opinion and give a response to the objectives of this study. The questionnaire was applied for a specific month and was based on the scales and questionnaires validated in the literature.

In the first 10 questions of the questionnaire determined the gender, age, literary qualifications, occupation, OS used, the most frequent way they listen to music and if effectively the respondents are consumers of music streaming platforms and if yes of which platform. The variables of the TAM model were used and in complement were used the variables in the study by Bhatt (2022), and the questions were structured to be able to obtain conclusive responses with predefined responses with a Likert-type scale from 1 completely disagree to 5 completely agree.

4 Analysis and discussion of results

The sample of the present study, as mentioned earlier, consists of 179 participants who answered all the data collection instrument questions. Initially, the main descriptive statistics were calculated using SPSS.

It was possible to see that the predominant gender of the sample is female, accounting for about two-thirds of the total sample, 119 women equating to a weight of 66.5%.

With respect to the age of the respondents, we find that the age of the participants ranges from 18 to 65 years. The mean age is 30.67 years with a standard deviation of 11.84. The predominant age group is the range up to 25 years, corresponding to about more half of the sample (57%), followed by respondents aged 36 to 45 (15.6%) and those aged comprised between 26 and 36 years old (15.1%). Regarding the remaining respondents, they represent about 12.3% of the sample corresponding to those respondents aged 46 and over 55 years.

Regarding educational level, we find that many of the participants have a degree (81 participants that amount to 45.3%). However, it was also possible to validate that most participants have literary qualifications at or greater than graduation (76.6%), meaning that only 23.4% of the sample has secondary school or less.

It was also possible to see that about 3/4 of the sample is effectively working (74.3% which corresponds to 133 participants) and that only 25.7% are not on employment assets and or are studying, unemployed, or already in reform (46 participants).

To understand whether the operating system (OS) could be a limitation in choosing the streaming platform, respondents that OS used were questioned. By analysing the mobile phone OS variable, we find that 2/3 of the participants use IOS (67.6%) and that only 56 of the participants use Android (31.1%), whereas only 2 participants mention that they use another OS (1.1%).

Most participants do not have the custom of listening to music on physical support, noting that they hear music often on the radio (41.3%), whereas only a few times watch live shows (42.5%). We can still see that 78.2% of participants (140) often listen to songs through streaming platforms. In analysing the subscription type, it is seen that about 3/5 of the sample use the paid version monthly (72.1%) and the rest use the free version, with less functionality and less quality (50 participants that corresponds to 27.9%).

A factor analysis has been made, by the principal component method, also applying the Kaiser method thus being identified a factor structure with five dimensions: perceived ease of use (6 items, Cronbach Alpha 0.95), technology anxiety (4 items, Cronbach Alpha 0.95), subjective norms (3 items, Cronbach Alpha 0.74), self-efficacy (3 items, Cronbach Alpha 0.92) and intention to use (2 items, Cronbach Alpha 0.94).

To determine whether there are differences in adoption of the streaming platforms, the Student t test was used. This test allows you to verify that the difference between the mean scores associated with each variable is significant. So, to test the hypothesis of adopting streaming platforms is higher in Spotify users compared to Apple Music users (Table 1).

It is found that participants have higher average values of intention to use (mean from 4.79 Apple Music to 4.73 on Spotify) and in perceived ease of use (mean from 4.60 from Apple Music to 4.53 on Spotify). In users of Spotify, technological anxiety is less than in Apple Music users (mean from 2.07 to 2.94).

By analysing Student's t test, we find that there are statistically significant differences in technological anxiety that is higher in Apple Music than Spotify (t= 4.39

p=0.00), however is not seen, statistically significant differences in the other dimensions are not seen.

Table 1. Average difference test according to music streaming platform

Dimension	Streaming Platform				*t*	*p*
	Apple Music		Spotify			
	Mean	Standard Deviation	Mean	Standard Deviation		
Perceived ease of use	4.60	0.77	4.53	0.58	0.77	.442
Technology anxiety	2.94	1.70	2.07	1.01	4.34	.000
Subjective norms	3.14	0.87	3.09	0.97	0.37	.704
Self-efficacy	4.24	1.36	4.41	0.69	-1.72	.272
Intention to use	4.79	0.55	4.73	0.56	0.82	.416

To test whether the adoption of streaming platforms is higher in male gender compared to female gender participants, the difference of means was also calculated by resorting to Student's t-test (Table 2).

Participants are found to have higher mean values of intention to use (mean 4.77 in men to 4.74 in women) and ease of use (mean 4.68 in men to 4.48 in women). In Spotify users, technological anxiety is lower in female users than in males (mean 2.42 to 2.21).

By analysing Student's t test, we find that there are statistically significant differences in the subjective norm that is higher in the male gender than in the female (t= -3.13 p=0.002). There are no statistically significant differences in the other dimensions, however.

Table 2. Average difference test according to the gender of the participants

Dimension	Gender				*t*	*p*
	Female		Male			
	Mean	Standard Deviation	Mean	Standard Deviation		
Perceived ease of use	4.48	0.72	4.68	0.43	-1.95	.053
Technology anxiety	2.42	1.37	2.21	1.26	0.99	.319
Subjective norms	2.97	0.78	3.37	0.95	-3.13	.002
Self-efficacy	4.29	1.08	4.50	0.64	-1.38	.170
Intention to use	4.74	0.57	4.77	0.52	-0.32	.749

5 Conclusion

With the application of the questionnaire, it was possible to draw some conclusions. The age group that was the least participating in the questionnaire was those over 55 years of age, which could mean that the youngest population is more easily user of a music streaming platform.

The TAM model features several variables that lead an individual to accept or not to accept a technology. Taking TAM into account as the base and questionnaire, it was possible to conclude that Spotify is more user-friendly for the users than Apple Music. In the other features, there are marginal medias in favour of Apple Music, but there are no statistical differences. It was also possible to conclude with the questionnaire that men are more at ease with the norms that women regarding subjective norms, however, on the other hand no significant differences were found relative to other uses of the platforms, meaning that both genders are adopting information technologies without difficulty. Finally, it was still possible to conclude that the higher the age, the minor is the perception of ease of use and self-efficacy, in this way can indicate that music streaming platforms tend to be friendly for most of the users.

Obviously, as in any study that is done, there have been limitations that came to make it hard to do the same. The main limitation found was the shortage of published articles on this topic. In addition to this, in Portugal, they do not exist or are very scarce experts about this area, as the only subjects found were from outside Portugal.

In addition to the already mentioned, another limitation found, is referring to the sample size used in this study and the method used for data collection. Regarding the sample, dealing with a reduced sample that characterises only a given context, in this case the Portuguese context, it is not in this way possible to generalise to a world context, since each reality is different from the other and here only one of them is studied. Since the data collection method, since the data collected were through an online questionnaire, there may be the possibility that there are biased responses which effectively do not match the reality for various reasons.

The previously mentioned limitations can be overcome with the development of future studies, however some changes in how the study was developed are needed.

One possible suggestion was to convey the same questionnaire, but in more detail to test more variables and define hypotheses and, in this way, to draw more conclusions. It was critical to collect a greater number of responses and to disclose them in other countries so that the sample was more representative, and it may still be possible to perform comparisons in geographic terms and verify some parallelism or even some transversality. It would still be interesting to expand this study to more music streaming platforms other than Spotify and Apple Music, thus making the sample more inclusive and diverse.

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