

Quality in the Music Applications: Case Study in Spotify, iTunes and JOOX

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ABSTRACT

In the several years, streaming services have been under the spotlight by disrupting traditional media consumption platforms. The music industry is one of the most heavily impacted by the existence of streaming services. The aim of this paper is to understand the customer's expectation for a music application and how far that is being full filled. Through the SERVQUAL scale, the customer's expectation and the perception of the applications' services quality will be analysed and the perceived quality of music streaming platform, Spotify, and digital music platform, iTunes will be compared.

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INTRODUCTION

The music industry is one of the biggest industries in the world, with over 17 billion dollars in revenue in 2017. However, it has been on a steady decline over the past decade with sales reducing by around \$10 billion in 10 years. The music industry has been going through major changes in the last 13 years: a gradual takeover of physical sales by digital downloads (with platforms such as iTunes), and the recent success of music streaming services that are seen by everyone as the future of the industry. As seen in figure 1, digital, non streaming, consumption of music did not enter the industry before 2005 and did not make a huge impact on the sales of physical medium until 2010 where there is a significant drop in physical sales. In addition to digital sales, streaming has also made a huge impact on the industry. Unlike digital sales, steaming’s effect on the industry feels almost instantaneous. As seen in figure 1, streaming did not really enter the industry until 2012 where it made around \$1 billion in revenues; however, unlike digital revenues where there is a short and gradual period of success, seen in the years 2008-2013, and subsequent decline, streaming has exploded into the industry seeing its revenue go from \$1.4 billion dollars to \$6.6 billion dollars in just 4 short years. From the figure it can also be seen that in 2016, along with the large streaming figure, revenue for the music industry has increased from the previous year since the year 2001, which then continues to increase in 2017; from this it can be inferred that although some has argued that the digital medium has seen a decline in the music industry, through streaming, the music industry is on the rise (ANotes, 2022; IFPI.org, 2018, 2023).

Today, music streaming services have become the most popular method for consumers to listen to music. In 2017, streaming makes up around 37% of the industry’s revenue, more than physical, digital, and performance rights (ANotes, 2022; IFPI.org, 2018, 2023). Every number connected to streaming platforms rose last year, with subscriber figures being perhaps the most important. In 2017, 64 million new people signed up to pay for their streaming privileges, bringing the total number of subscribers across the many companies competing for market share to 176 million (McIntyre, 2018).

This almost sudden shift into streaming seems almost obvious and inevitable. Streaming services offer consumers unlimited access to large catalogues of music (Van Dyke, 2021). The growth of music streaming has much to do with the fact that many consumers have access to a smart phone with internet on a regular basis. Thus, showing that the rise of music streaming services has been dependent on the technology which has been created alongside it. Music streaming has offered the music industry and its artists a new method of sharing and distributing music to consumers across the world (Van Dyke, 2021).

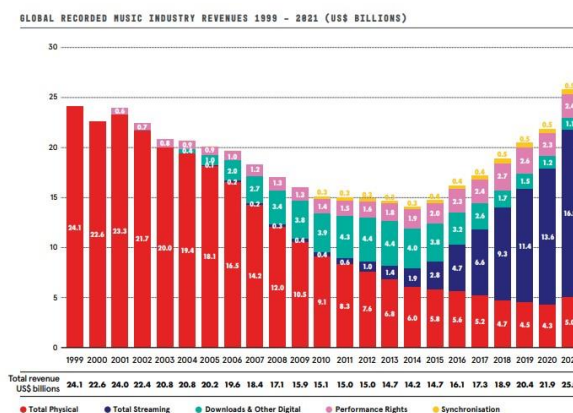


Figure 1: Global Recorded Music Industry Revenues 1999-2017

Source: (ANotes, 2022; IFPI.org, 2018, 2023)

Within the global digital music market, Asia is relatively small, with regional revenue amounting to less than a third than that of the United States. Despite its’ popularity in the United States and Europe, Spotify, the biggest music streaming service, is facing major challenges in Asia. Due to rampant, normalized piracy and limited budgets, Spotify has been unable to be as successful in Asia as it has been in other regions (Yuniar, 2018). However, despite Asia accounting for only 14 percent of the global digital music revenue, the region had 44 percent of all internet users in 2015, and 25 percent of global GDP in 2013 (Bundgaard et al., 2016). About 2/3 of the world population, now have already reached 5.3 billion in 2022 (The World Bank, 2023). In addition to that, as seen in figure 2, the overall revenue in the region is growing. When excluding Japan and Thailand, every single country’s digital music streaming numbers are

rising. Due to the young, growing generation of mobile users, improved connectivity, and innovations in the music streaming user experience the numbers of music streaming users are expected to continue growing (Bundgaard et al., 2016; The World Bank, 2023).

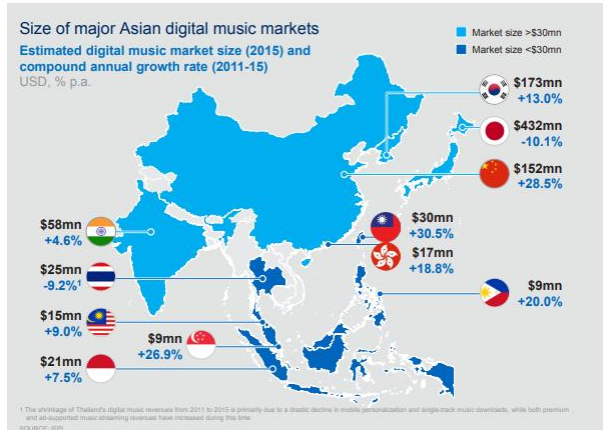


Figure 2. Size of Major Asian Digital Music Markets in 2015
Source: (Bundgaard et al., 2016)

In Indonesia, music streaming is on a rise. With a massive population of over 250 million, even close to 300 million, and a reported 173 million mobile phone users, Indonesia has become a highly attractive territory for mobile marketing. In a report published by Jakpat (Jakpat, 2019), a mobile survey provider in Indonesia, it was revealed that top daily activities on mobile include social media, chatting, listening to music and gaming. In the 16 to 19 year-old age bracket, 59.56% listen to music daily on their smartphone, compared with 51% of the 20-35 year-old group. In order to navigate some of the challenges faced by many streaming services in the Asian region, when launched in 2016, Sweden-based Spotify demonstrated that it understands Indonesia's mobile first market well when it lets users choose from a variety of popular payment methods, including bank transfers and paying cash at convenience stores, as well as partnering with Indosat Ooredoo, one of the biggest local mobile phone operators (The ASEAN Post Team, 2018). Unlike in Europe and the United States, Spotify is not the leading streaming platform in many Asian countries, among which is Indonesia. As seen in figure 3, in Indonesia as well as in other countries, JOOX, a Hong-Kong based music streaming service is the preferred platform.



Figure 3. Music Streaming Service Users in Thailand, Malaysia, Hong Kong, and Indonesia by Platforms
Source: (Bundgaard et al., 2016)

The aim of this paper is to understand the customer's various expectation for a music application and how far that is being full filled. SERVQUAL scale is being used to understand the customer's expectation and the perception of the application's services quality and to compare the perceived quality of music streaming platform, Spotify, JOOX and digital music platform, iTunes.

LITERATURE REVIEW

Spotify

Spotify is a digital music, podcast, and video streaming service that gives users access to millions of songs and other types of content from artists across the world. Since its launch, it has changed the way people listen to music. With Spotify, users can stream content instantly rather than downloading individual tracks or albums. The platform has become one of the most popular services for entertainment because of its easy access, convenience, and wide variety of features. Millions of people around the world rely on Spotify daily—not only for music, but also for podcasts, news, and cultural insights. Spotify is available across various devices, including computers, smartphones, tablets, smart TVs, game consoles, and wireless speakers. One of Spotify's most useful features is Spotify Connect (Sheridan, 2025; Start.io, 2022), which allows users to switch between devices effortlessly. This means you can start listening to a song on your phone and continue listening on a smart speaker without interruption. According to Sheridan (2025) and Start.io (2022), this seamless device integration is one of the reasons why Spotify remains a top choice among digital streaming services.

Features and User Experience

Spotify offers a smooth and flexible experience for users. Signing up is easy—users can create an account using their email address or simply log in via Facebook. Once registered, Spotify gives access to two main account types: Free and Premium. Each offers a different experience depending on the user’s preferences and willingness to pay for additional features;

Free users can listen to millions of tracks but are limited to shuffle mode on mobile devices. They also hear advertisements between songs and cannot skip tracks unlimitedly. Despite these restrictions, the free plan still gives access to curated playlists, algorithm-based recommendations, and podcasts.

Premium users, on the other hand, enjoy a much richer experience. By paying a monthly subscription fee, they get access to ad-free listening, the ability to download music for offline listening, and unlimited skips. Premium users can also select and play any track without the constraints of shuffle mode. For users who travel or have unstable internet connections, offline listening is especially useful. This distinction between Free and Premium is part of Spotify’s freemium business model, which has proven highly successful in converting free users into paying subscribers over time.

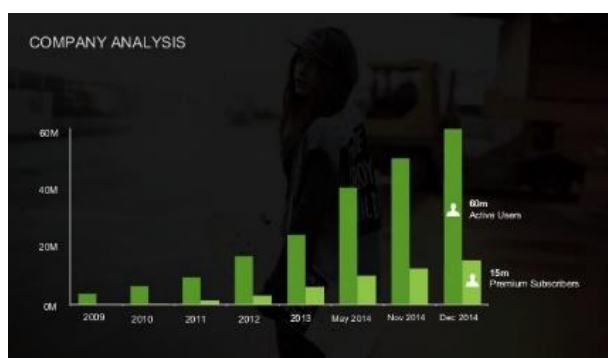


Figure 4. Spotify Audiences
Source (Sheridan, 2025; Start.io, 2022)

Additionally, Spotify makes excellent use of personalization. Its algorithms analyze users’ listening habits to recommend songs, albums, and playlists that match their tastes. The popular Discover Weekly playlist is refreshed every Monday with new suggestions tailored to each listener. Similarly, Release Radar keeps fans updated on the latest music from their favorite artists. These

personalized features not only enhance user satisfaction but also encourage longer engagement with the app.

History and Global Growth

Spotify was founded on April 23, 2006, by Daniel Ek and Martin Lorentzon in Stockholm, Sweden. The platform officially launched to the public on October 7, 2008. At that time, piracy and illegal downloads were common, and the music industry was struggling. Spotify introduced a legal, user-friendly way to stream music, which helped change the industry’s direction. In the early years, Spotify was only available in a few European countries. However, as demand for streaming services grew, Spotify expanded its reach. Today, it operates in more than 180 countries and territories and continues to grow. Spotify is available in multiple languages, and the platform supports local artists as well as global stars. This worldwide access has made Spotify not just a tool for entertainment, but also a platform for cultural exchange and music discovery.

As of 2025, Spotify has over 600 million users worldwide, with more than 230 million of them being premium subscribers (Sheridan, 2025). This growth has been fueled by its adaptability and willingness to invest in new features. Spotify was one of the first platforms to push podcasting to a mainstream audience, acquiring companies like Anchor and Megaphone and signing exclusive podcast deals with celebrities and public figures.

iTunes

iTunes is widely recognized as one of the earliest and most influential digital media platforms in the world. Developed by Apple Inc., it was officially launched in 2003 as a media player and music store. Since its release, iTunes has evolved into what Apple proudly refers to as a "home of endless entertainment". This platform became a one-stop application for users seeking to enjoy music, movies, and other forms of digital content in one place. Over the years, iTunes has expanded its library to include more than one million original music tracks (Dan, 2023; Heathman, 2018; Larocca, 2025). It has not only transformed how people consume media but also played a significant role in shaping the modern digital music industry.

Features and Services

The iTunes platform was originally designed to help users manage their music collections more efficiently. It quickly evolved into a digital storefront that sold songs, albums, audiobooks, TV shows, and movies. With the launch of the iTunes Store, users were able to legally purchase and download their favorite content, which marked a significant shift in the entertainment landscape. Before platforms like iTunes, the music industry suffered heavily from illegal downloading and piracy. Apple's solution helped curb that problem by offering a convenient and legal alternative (Dan, 2023; Heathman, 2018; Larocca, 2025). One of the defining features of iTunes is that it operates on a pay-per-item model rather than offering free or ad-supported access. Users must purchase individual songs or albums and then have the ability to download them permanently to their devices. Similarly, users must pay for access to movies and other video content. Although this may seem restrictive compared to today's subscription-based platforms, Apple's approach was intentional. iTunes was created not just as a business venture, but also as a tool to support artists, filmmakers, and the music industry by ensuring they were fairly compensated for their work. In addition to its vast music catalog, iTunes also allows users to rent or buy movies and TV shows, making it a full-fledged entertainment hub. Users can stream content or download it for offline use, ensuring access even without an internet connection. This feature has made iTunes a popular choice for travelers and users with limited data plans.

Platform Compatibility and Limitations

While iTunes was initially designed for Apple's macOS and iOS operating systems, it later became available on Windows and even Android platforms (Biersdorfer, 2017; Sharma, 2018). On iOS devices such as iPhones and iPads, iTunes comes pre-installed as part of the operating system bundle, making it extremely convenient for Apple users. However, Windows and Android users must manually download iTunes through the Apple website or Google Play Store in order to access its features. This difference in accessibility has contributed to a perception that iTunes is mainly suited for Apple-brand users. While the service is technically cross-platform, many users find the experience to be more seamless and intuitive on

Apple devices. In contrast, non-Apple users may face some compatibility issues or a steeper learning curve when navigating the app. As a result, iTunes has not been as widely adopted by Android and Windows users compared to other platforms that are built specifically for a broader audience. In recent years, Apple has begun shifting its focus from iTunes to newer services such as Apple Music, which offers a subscription-based model similar to Spotify. However, iTunes still remains an active platform for users who prefer to own their media outright rather than rely on streaming services.

iTunes and the Digital Music Industry

One of the most important contributions of iTunes is its role in transforming the digital music industry. Before iTunes, many users downloaded music illegally through peer-to-peer file-sharing networks like Napster or LimeWire. These practices harmed musicians and record labels by preventing them from earning fair profits. iTunes provided a secure and legal alternative by offering high-quality, paid downloads of songs and albums. By emphasizing ownership and fair compensation, iTunes helped rebuild trust between consumers and the music industry. Users could purchase individual songs instead of entire albums, giving them more freedom and affordability in how they accessed music. This pay-as-you-go model was revolutionary at the time and became the foundation for future services like Apple Music and even influenced platforms like Amazon and Google Play. Moreover, iTunes played a major role in the digitization of music libraries. Instead of maintaining large collections of physical CDs or MP3 files stored on hard drives, users could manage their libraries entirely through iTunes. The platform also allowed users to create custom playlists, import CDs, and sync content across devices, which added convenience and flexibility to how music was consumed.

2. Service Quality

There are several theories and concepts that have been developed in order to measure service quality. There are two diverse aspects of service quality, the technical quality and the functional quality. The SERVQUAL scale is constructed on the theory that compares several service quality aspects of a service where customer reflects the requirement from the service. What is essentially received

determines the level of quality expected by the customer. In the original version, the researchers recognized ten different dimensions of service quality (Archakova, 2103; Daniel & Berinyuy, 2010; Ravichandran et al., 2010).

SERVQUAL is a well-established model developed by A. Parasuraman, Valarie Zeithaml, and Leonard L. Berry (Nawangwulan et al., 2012) to assess service quality from the customer's perspective (Jurevicius, 2025). It stands for "Service Quality" and is based on the idea that service quality can be measured by comparing customer expectations with their actual perceptions of the service they receive. The greater the gap between expectations and perceptions, the lower the perceived service quality. In the increasingly competitive world of services—from hospitality and banking to digital platforms like Spotify, JOOX, and iTunes—understanding and meeting customer expectations is essential. SERVQUAL provides a structured approach for service-based businesses to identify performance gaps and improve customer satisfaction.

From the results gained and following other researches, the scale is now categorized into five categories: (1) Tangibility: the appeal of facilities, equipment and material used by a service firm as well as to the appearance of service employees. It is any aesthetic or tangible item that a service has. in terms of digital services like music streaming, tangibles could relate to the user interface design, visual branding, or the professionalism of advertisements and promotional content, (2) Reliability: the service firm provides its customers with accurate service the first time without making any mistakes and delivers what it has promised to do by the time that has been agreed upon; in terms of a streaming platform like Spotify or JOOX, this would involve consistent access, error-free song playback, and accurate recommendation algorithms,, (3) Responsiveness: the employees of a service firm are willing to help customers and respond to their requests as well as to inform customers when service will be provided, and then give prompt service as to an online platform, responsiveness might refer to quick customer support, app updates, or technical issue resolution, (4) Assurance: the capability to express confidence and sureness to customers, also the employees'

capability, esteem and honesty. In the context of music platforms, this involves secure payment systems, privacy protection, and clear communication from the company, and (5) Empathy as if the firm understands customers' problems and performs in their best interests as well as giving customers individual personal attention; this can be seen in personalized playlists, localized content, or responsive customer care that understands and addresses user concerns.

For companies like Spotify, JOOX, and iTunes, using SERVQUAL can help in the following ways; (1) benchmarking performance across different markets and demographics, (2) enhancing user satisfaction by addressing specific weaknesses, (3) designing better customer service strategies and app features, (4) evaluating competitor advantages by comparing perception gaps, and (5) SERVQUAL is flexible and can be customized to suit different industries by modifying or extending the standard questionnaire to include industry-specific items.

RESEARCH METHOD

To reach the samples, this paper try to get a total up to 150 samples to see if the distribution is rather random – from the ages (up to more than 45 years of age), gender, and whether the music is actually played on certain playware such as; Spotify, iTunes, JOOX, and others. A total sample used is actually 128 samples to distribute among populations in Jakarta, Bogor, Tangerang, Depok, and Bekasi.

Through the SERVQUAL model (Anantadjaya & Nawangwulan, 2018; Daniel & Berinyuy, 2010; Krishna Naik et al., 2010; Ravichandran et al., 2010), the paper established a scale to measure the customers' expectations and perceptions for a music application service, using the 5-point Likert's scale. Every factor is calculated, to find the variation between perceptions and expectations. A positive general average of the dimensions denotes satisfaction and a negative general average denotes dissatisfaction.

RESULT & DISCUSSION

Validity and Reliability Results

These are the validity and reliability results from SPSS, that the validity result it is 80.5% and the reliability result is 80%. Both results are sufficiently satisfied.

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.805
Bartlett's Test of Sphericity	Approx. Chi-Square	820.804
	df	153
	Sig.	.000

Table 2. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.781	.800	18

7.2. Descriptive Statistics

This is the descriptive statistics based on the SPSS and the data is from 128 data with the following data, except for gender, age, and most use music application, for their self-explanatory, RL for reliability (RL1 is for “users are using music applications based on the company name attached”, RL2 is for “users use music applications because of the available music catalogue”, and RL3 is for “users use music application following the latest tren”), EM for empathy (EM1 is for “users use music applications because of the personalization aspects (personnally made playlist)”, EM2 is for “users use applications because it is affordable”, EM3 is for “users use music application because it is easy to

use”), RS for responsiveness (RS1 is for “users use music application because of the quickness customer service”, RS2 is for “users use music application because of the easy payment method”, RS3 is for “users use music application because there are no other choices”), AS for assurance (AS1 is for “users use music application to get rid of bored”, AS2 is for “users use music application because of privacy option”, AS3 is for “users use music application because it is free”), and TN for tangibility (TN1 is for “users use music application because of the good design or features offered”, TN2 is for “users use music application because of good sound quality”).

Table 3. Descriptive Statistics

	N	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Gender	128	1.563	.0440	.4980	.248	-.255	.214	-1.966	.425
Age	128	2.961	.1247	1.4109	1.991	.549	.214	-1.387	.425
Most Use Music Application	128	2.109	.1071	1.2117	1.468	.623	.214	-1.211	.425
RL1	128	2.891	.1024	1.1586	1.342	-.092	.214	-.617	.425
RL2	128	3.914	.0954	1.0797	1.166	-.894	.214	.269	.425
RL3	128	3.016	.1070	1.2101	1.464	-.003	.214	-.740	.425
EM1	128	3.719	.0967	1.0936	1.196	-.814	.214	.319	.425
EM2	128	3.500	.1046	1.1839	1.402	-.390	.214	-.597	.425
EM3	128	4.219	.0807	.9131	.834	-1.081	.214	.958	.425
RS1	128	3.359	.0939	1.0629	1.130	-.364	.214	-.089	.425
RS2	128	3.445	.0933	1.0560	1.115	-.526	.214	-.048	.425
RS3	128	2.398	.1066	1.2059	1.454	.502	.214	-.658	.425
AS1	128	3.984	.0973	1.1011	1.212	-1.047	.214	.561	.425
AS2	128	3.719	.0934	1.0569	1.117	-.674	.214	.156	.425
AS3	128	3.758	.1027	1.1620	1.350	-.523	.214	-.542	.425
TN1	128	3.484	.0935	1.0573	1.118	-.507	.214	-.125	.425
TN2	128	4.102	.0836	.9461	.895	-1.112	.214	1.253	.425

Table 3 shows a descriptive statistic data that were collected at the end of the research. There is a total of 128 valid respondents, as seen at the N value. The mean value in table 3 are addresses to the average answer from 128 valid respondents. According to the data, the average respondents has chosen "Neither agree nor disagree" option to most of the statement given in the survey.

DISCUSSION

Based on the Table 3, the mean answers for each statement is categories as a neutral answer or in between. All statement is given at the survey. This research aims to compare services of three music applications Spotify, JOOX, and iTunes using customer satisfaction survey. Table 3 explain the mean of each statement with result above 3,50 means that the respondents are agree with the

statement as (RL2) Users use music application because of the available music catalogue; the more music available will directly make the user more interested in using the music application. (EM1) Users use music application because of the personalization aspects such making their own playlist. (EM3) Users use music application because it is easy to use. (AS1) Users use music application to get rid of bored, respondents do believe listening music can fill the emptiness. (AS2) Users use music applications because of privacy options. (TN2) Users use music application because of the good sound quality offered by music application.

All the above statement mentioned is the important key why people use music application. Statement that have point more than 3.50 are all the answer that related to customer satisfaction while using music application.

Table 4. Survey Result of 128 Valid Respondents on Gender

Gender	
Male	Female
43.80%	56.30%

Table 4 shows that the number of females is dominated by 56.30% from 128 valid respondents. This can be concluded that the gender who love to use music applications are female. Majority of female are using feelings, this directly led to emotions. Female tend to related their feelings to some songs which can

express their feeling at the moment.

Moreover, it shows that higher customer satisfaction is coming from female while using music application. Higher number of promotion and good marketing strategy are so impactful on female.

Table 5. Survey Result of 128 Valid Respondents on Age

Age				
< 18	18-25	26-35	36-45	> 45
6.30%	53.90%	5.50%	6.30%	28.10%

Table 5 shows that the majority of 128 respondents are at age between 18 to 25 years old with 53.90%. This can be concluded that the users of music application are coming from adults who love to

express their interest on music. Age 45 above do show the interest on filling the survey about music application but not as much as adults do with 28.10%.

Table 6. Survey Result of 128 Valid Respondents on Most Used Music Application

Most Used Music Application			
Spotify	JOOX	iTunes	None
43.80%	25.80%	6.30%	24.20%

Table 6 shows that most used music application goes to Spotify with 43.8%, JOOX got 25.8%, iTunes got 6.3%, and the other 24.2% are not using three music applications mentioned. From 128 respondent, 24.20% are not using music applications because the service offered by music application does not meet their satisfaction or respondents are not aware of technology by supporting number of 28.10% of 128 respondents are age above 45 years old dominating after age between 18 to 25 years old with number of 53.90%.

The reason why most of the respondent are preferred to use Spotify is because of the availability songs offered. Personalization also the important aspects for them on making their own playlist which every music application offered by charging additional price. Easy access on the applications and understandable features are one of the user’s consideration on using music applications. sound quality will also be an important aspect on choosing which music applications user would like to use.

Table 7. Survey Result of 128 Valid Respondents on Time Spent Using Music App Per Day

Time Spent Using Music Applications per Day			
0 to 1	2 to 3	4 to 5	More than 6
31.30%	48.40%	11.70%	8.60%

Table 7 shows that using music application 2 to 3 times a day reach 48.40% of respondents are dominating. Never to one time a day using music application are second dominated with 31.30%. 11.70% of respondents are using music applications 4 to 5 time a day. And last, respondents who use music applications more than 6 time a day.

Implications

The research on Spotify, iTunes, and JOOX highlights key implications for both theory and practice in the digital music streaming industry. Theoretically, these platforms reflect the ongoing transformation of media consumption in the platform economy. Spotify and JOOX embody the principles of freemium models and behavioral economics, where users are offered free access with limited features and encouraged to upgrade through value-added experiences. iTunes, on the other hand, illustrates the role of institutional legitimacy in the digital age by offering a legal, pay-per-download alternative to music piracy. These models demonstrate how digital platforms reshape consumer expectations and legitimize new patterns of cultural consumption.

Theoretical Implications

The rise of Spotify, iTunes, and JOOX represents more than just technological innovation; it also contributes to ongoing discussions in media studies, consumer behavior theory, platform

economy, and digital transformation theory. The following theoretical insights emerge:

1. Media Convergence and Platformization as these platforms show how media convergence has shaped user behavior and content distribution. Rather than buying physical CDs or DVDs, users now expect on-demand access, personalized recommendations, and seamless integration across devices. This shift is central to platform theory, where services like Spotify and JOOX act as intermediaries between content creators and consumers. The platformization of culture means control over distribution now lies with tech companies, changing how music is consumed and monetized globally.
2. The Freemium Model in Behavioral Economics of Spotify and JOOX operate on a freemium model, where free access is given with limited features and ads, while premium (paid) services remove those limitations. This taps into prospect theory and consumer choice theory, where users evaluate trade-offs between cost and utility. The models show how users are gradually nudged from free to paid options through controlled exposure to ads and limited functionality.
3. Legitimization of Digital Consumption of iTunes is especially relevant to institutional theory, showing how legal platforms reshape consumer norms. By offering legal downloads at a cost, iTunes helped reposition digital

music consumption as a legitimate, industry-supported behavior. This contrasts with the early 2000s trend of music piracy and shows how institutions adapt to digital legitimacy.

4. Localized vs. Global Strategy is among JOOX offers strong support to glocalization theory—the idea that global products must adapt to local preferences. JOOX’s focus on Asian music markets and culturally-relevant content proves that localized content can outperform global catalogs in specific regions. This suggests that culture-specific consumer identity plays a major role in platform loyalty.

From a managerial perspective, the success of these platforms emphasizes the importance of strategic monetization, user experience, and market localization. Spotify excels with its AI-driven personalization and seamless multi-device connectivity, making it a leader in user engagement. JOOX shows the power of localized content and pricing, particularly in emerging Asian markets, while focusing on video-based advertising instead of audio ads. iTunes reveals the risks of not adapting quickly to streaming trends, highlighting the need for continuous innovation. Overall, managers must prioritize flexible pricing strategies, cross-platform accessibility, and culturally relevant content to stay competitive in a rapidly evolving digital landscape.

Managerial Implications

From a management and strategic decision-making perspective, these platforms offer a range of practical insights for business leaders, developers, and content creators in the streaming industry:

1. Product Differentiation and User Retention that product design alone is not enough (Sletten, 2021); user retention is driven by a mix of technology, content, and psychological engagement. Spotify uses advanced AI algorithms to personalize playlists like “Discover Weekly” while JOOX uses video-based interactivity to keep users engaged (Taskhiyana et al., 2023). Managers should consider investing in data analytics, user behavior tracking, and personalization engines to boost long-term loyalty.
2. Monetization Strategy Must Match Market Context is JOOX’s success in emerging Asian

markets shows that low-cost subscription tiers, for instance; for as low as Rp. 25,000/month, can be more effective than premium-only models (Joe Gan, 2020). Spotify’s success with freemium, compared to iTunes’ pay-per-download model, shows that monetization must align with regional economic conditions and digital culture. Managers should adapt revenue models, such as; ads, subscriptions, sponsorships, to fit local purchasing power and consumer behavior.

3. Cross-Device Integration is a Competitive Advantage between Spotify, iTunes, and JOOX, offer cross-platform functionality, but Spotify’s device-agnostic integration via Spotify Connect gives it an edge. Managers and developers must ensure seamless experience across phones, tablets, desktops, smart speakers, and wearables. Investing in API ecosystems and cloud syncing features ensures smoother user migration across devices, which can drive higher session time and satisfaction.
4. Cultural Customization Matters is defined as JOOX’s strategy to prioritize local languages, regional artists, and holiday-themed playlists has helped it outpace even global competitors in some areas. This underlines the importance of cultural customization in user acquisition and retention. Managers must not treat the global market as homogenous and should consider creating regional content teams to localize the experience effectively.
5. Branding Through Experience, Not Just Marketing in terms of iTunes initially gained market dominance due to its strong integration with the iPod and iPhone ecosystem, but over time, its lack of adaptability to newer user expectations (like streaming and personalization) cost it market share. Spotify and JOOX both rely heavily on user experience design, social sharing features, and dynamic playlists to build brand identity. Managers should prioritize UX/UI design and emotional branding over traditional marketing to remain relevant in the digital media space.

Limitation

In terms of limitations for Spotify, iTunes, and JOOX, it is all separately going have some limitations;

- Spotify, this is all true because of dependency on internet thus making it inconvenient for users with limited internet access, for free-tier users all frequent ads can reduce listening satisfaction and discourage long-term engagement, Not all songs are available in every country due to copyright and licensing agreements, and Spotify collects large amounts of user data for personalization, raising privacy and ethical concerns for researchers and users alike (Joseph Gan, 2020; Sheridan, 2025; Start.io, 2022; Yuniar, 2018)
- iTunes, the limitations are (a) Pay-to-Own Model Decline - the pay-per-song/download model feels outdated in the era of subscription-based streaming, making iTunes less attractive to younger audiences, (b) Limited Free Access - unlike freemium services, iTunes doesn't offer much in terms of free content, reducing its reach among users with lower purchasing power, (c) Platform Fragmentation - though available on non-Apple platforms, iTunes performs best in the Apple ecosystem. Android and Windows versions may have reduced functionality and popularity, and (d) User Experience iTunes' interface has been criticized for being cluttered and less intuitive compared to more modern streaming apps (Biersdorfer, 2017; Dan, 2023; Heathman, 2018; Larocca, 2025; Sharma, 2018).
- JOOX limitations are as follows; (a) Limited Global Reach - JOOX remains highly popular in Asia, but its presence is weak in Western markets, making it regionally confined, (b) Content Library Size - compared to Spotify or Apple Music, JOOX offers fewer international tracks, limiting music diversity for global users, (c) Ad-Based Revenue Limitation - as JOOX avoids audio ads and relies on video and interactive ads, which may not always translate into consistent revenue or user growth, (d) Perceived Brand Value - in some markets, JOOX is viewed as a budget or secondary alternative to Spotify or Apple

Music, which can impact brand loyalty (Chan, 2017; Joseph Gan, 2020; Halim, 2015).

For Future Research

Future research on Spotify, JOOX, and iTunes can focus on several key areas to deepen understanding of digital music platforms and their impact on user behavior, the music industry, and global media culture. One important direction is to explore the long-term effectiveness of different monetization strategies, especially the freemium model used by Spotify and JOOX versus the pay-to-own model of iTunes (Times for Design, 2023; Tyrvaianen & Karjaluoto, 2024). Researchers can investigate which approach fosters stronger user loyalty, better revenue generation, and more equitable returns for artists across various regions. Another relevant topic is the impact of personalization algorithms on user satisfaction and music discovery. Platforms like Spotify use AI to recommend songs, but future studies can examine whether these systems create "filter bubbles" that limit musical diversity or influence listener habits over time. Cross-cultural and regional usage patterns also offer a rich area of study. JOOX's popularity in Asia versus Spotify's global dominance and iTunes' stronger presence in Apple ecosystems raises questions about how culture, language, and local content preferences shape user adoption and engagement (Moschis, 2024; Timokhina et al., 2018). Additionally, user privacy and data ethics deserve more attention. As all three platforms collect and analyze user data to improve services, future research could examine how users perceive data collection practices, and how those perceptions affect trust and continued usage.

Finally, studies could evaluate the social and economic impact of music streaming on independent musicians, traditional record labels, and music distribution models. This includes examining artist compensation, exposure opportunities, and challenges related to digital copyright enforcement.

CONCLUSION

Research survey is using an 18-question questionnaire. 128 people have participated in our survey. Most respondents are at the age of 18-25. The dominating gender is female that has number of 56.30%. Spotify has most of the votes. On average, people spend 2-3 times using music

application. According to the analysis, not all elements in RATER have significant value on music application usage. Element that does not seem to play roles on the satisfaction is responsiveness, in which the mean of all of its sub-question's responses are below 3.50, while the rest have more than 3.50. Due to the rise in music streaming, and the fact that music industry earns the biggest

preferences, researches aim to compare services in three different music applications – iTunes, Spotify, and JOOX based on a survey. This comparison is using SERVQUAL, a survey that measures customer satisfaction. SERVQUAL consists of several pointers known as RATER. RATER is an abbreviation. RATER is a set of initials for reliability, assurance, tangibility, empathy, and responsiveness.

REFERENCES

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- Anantadjaya, S. P., & Nawangwulan, I. M. (2018). Simple Steps For Your Business Research: Tips & Tricks (Satiri, T. A. Rachmat, & B. W. Saputra (eds.)). Kang Guru Beruang.
- ANotes. (2022). The Global Music Industry Reaching New Peaks - Everything You Need to Know. ANote Music. <https://blog.anotemusic.com/the-global-music-industry-reaching-new-peaks-everything-you-need-to-know-at-a-glance>
- Archakova, A. (2103). Service Quality and Customer Satisfaction. Case Study: Company X (Faculty of Business Administration Lappeeranta). https://www.theseus.fi/bitstream/handle/10024/65503/Archakova_Asyia.pdf
- Biersdorfer, J. (2017). Taking Your iTunes Library to Android. The New York Times. <https://www.nytimes.com/2017/10/20/technology/personaltech/itunes-library-android.html>
- Bundgaard, T., Karlsson, A., Lau, A., & Pereira, A. (2016). The Beat of Progress: The Rise of Music Streaming in Asia. McKinsey. https://www.mckinsey.com/~media/mckinsey/industries/technology/media_and_telecommunications/media_and_entertainment/our_insights/digital_musics_asian_beat/the-beat-of-progress-the-rise-of-music-streaming-in-asia.pdf
- Chan, J. (2017). Joox: We Don't Believe in Conversion through Audio Ads. Campaignasia. <https://www.campaignasia.com/article/joox-we-dont-believe-in-conversion-through-audio-ads/433991>
- Dan. (2023). 15 Interesting Facts About iTunes. World Facts. <https://www.worldsfacts.com/15-interesting-facts-about-itunes/>
- Daniel, C. N., & Berinyuy, L. P. (2010). Using the SERVQUAL Model to Assess Service Quality and Customer Satisfaction. An Empirical Study of Grocery Stores in Umea. In Umea Universitet School of Business. <https://www.diva-portal.org/smash/get/diva2:327600/fulltext01>
- Gan, Joe. (2020). Can Tencent's Joox beat Spotify in Asia? Tech in Asia. <https://www.techinasia.com/tencents-joox-beat-spotify-asia>
- Gan, Joseph. (2020). Bisakah Joox Mengalahkan Spotify di Asia? <https://id.techinasia.com/bisakah-joox-mengalahkan-spotify-di-asia>
- Halim, B. (2015). JOOX: The Complete, Free, & Legal Music Streaming Apps. Medium. <https://billyhalim.medium.com/joox-the-complete-free-legal-music-streaming-apps-87f490019c3a>
- Heathman, A. (2018). iTunes 15th Anniversary: 15 Facts About the Original Apple Music Platform. The Standard. <https://www.standard.co.uk/news/tech/itunes-15th-anniversary-15-facts-a3825741.html>
- IFPI.org. (2018). IFPI Global Music Report 2018. IFPI - News. <https://www.ifpi.org/ifpi-global-music-report-2018/>
- IFPI.org. (2023). Global Growth by Region 2023. IFPI - Industry Data. <https://www.ifpi.org/our-industry/industry-data/>
- Jakpat. (2019). Indonesian Mobile Habit 1st Semester of 2019 – JAKPAT Survey Report. Jakpat. <https://insight.jakpat.net/indonesian-mobile-habit-1st-semester-of-2019-jakpat-survey-report/>
- Jurevicius, O. (2025). Mastering the SERVQUAL Model. Strategic Management Insight. <https://strategicmanagementinsight.com/tools/servqual-model/>
- Krishna Naik, C. N., Gantasala, S. B., & Prabhakar, G. V. (2010). Service Quality (Servqual) and its effect on customer satisfaction in retailing. *European Journal of Social Sciences*, 16(2), 239–251.
- Larocca, A. (2025). 27 Facts About iTunes. FACTS.Net. <https://facts.net/culture-and-the-arts/mass-media/27-facts-about-itunes/>

- McIntyre, H. (2018). For The First Time, Streaming Is The Biggest Revenue Source In The Music Industry. Forbes. <https://www.forbes.com/sites/hughmcintyre/2018/04/24/for-the-first-time-ever-streaming-is-the-single-biggest-moneymaker-in-the-music-industry/>
- Moschis, G. P. (2024). Cross-Cultural Research. In *Academic Research in Business and the Social Sciences* (pp. 179–207). https://doi.org/https://doi.org/10.1007/978-3-031-56548-9_9
- Nawangwulan, I. M., Anantadjaya, S. P., Widayatmoko, D. H., & Hulu, D. (2012). Building Conditions and Facilities Improve Customer Satisfaction? An Evidence of Consumer Behaviors in Office Buildings. 1–17. <http://papers.ssrn.com/abstract=2083195>
- Ravichandran, K., Prabakaran, S., & Kumar, S. A. (2010). Application of Servqual Model on Measuring Service Quality: A Bayesian Approach. *Enterprise Risk Management*, 2(1), 145–169. <https://doi.org/https://doi.org/10.5296/erm.v2i1.341>
- Sharma, A. (2018). How to Download and Install iTunes for Windows 10, 8, 7. Tech Worm. <https://www.techworm.net/2018/10/how-to-download-itunes-for-windows-7-8-10.html>
- Sheridan, N. (2025). Spotify Marketing Strategy 2025: A Case Study. Latterly. <https://www.latterly.org/spotify-marketing-strategy/>
- Sletten, R. T. (2021). Spotify: Strategic Plan and Analysis. Scholar Works. <https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=1346&context=utpp>
- Start.io. (2022). Spotify Target Market Segmentation – User Demographics & Audience Targeting Strategy for 2022. Start.io-Developers. <https://www.start.io/blog/spotify-target-market-segmentation-user-demographics-audience-targeting-strategy/>
- Taskhiyana, A. D., Augustinah, F., & Herawati, A. (2023). The Influence of Product Development and Brand Resonance on Customer Retention Among Users of The Digital Music Streaming Service Spotify. *International Journal of Multicultural and Multireligious Understanding*, 10(12). <https://ijmmu.com/index.php/ijmmu/article/view/5166>
- The ASEAN Post Team. (2018). The State of Music Streaming in Southeast Asia. The ASEAN Post. <https://theaseanpost.com/article/state-music-streaming-southeast-asia-1>
- The World Bank. (2023). Digital Progress and Trends Report 2023. The World Bank. <https://openknowledge.worldbank.org/server/api/core/bitstreams/95fe55e9-f110-4ba8-933f-e65572e05395/content>
- Times for Design. (2023). The Freemium Model: How Spotify Tuned Into Profitability. Time for Design. <https://www.timefordesigns.com/vehicle-branding-solutions/>
- Timokhina, G., Urkmez, T., & Wagner, R. (2018). Cross-Cultural Variations in Consumer Behavior: A Literature Review of International Studies. *South East European Journal of Economics and Business*, 13(2), 49–71. <https://doi.org/http://dx.doi.org/10.2478/jeb-2018-0012>
- Tyrvaainen, O., & Karjaluoto, H. (2024). Willingness to Pay for Freemium Services: Addressing the Differences between Monetization Strategies. *International Journal of Information Management*, 77. <https://doi.org/10.1016/j.ijinfomgt.2024.102787>
- Van Dyke, E. (2021). The Rise of Music Streaming Services. GlobalEDGE. <https://globaledge.msu.edu/blog/post/57046/the-rise-of-music-streaming-services>
- Yuniar, R. W. (2018). Is Asia Spotify's Weak Spot? South China Morning Post. <https://www.scmp.com/week-asia/business/article/2141288/asia-spotifys-weak-spot>