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# Niche Analysis of Competition among Music Streaming Services in Korea

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**Keywords:** music streaming, music streaming service, music streaming platform, niche analysis, Melon, Genie Music, FLO, YouTube Music

## Abstract

With the advancement of digital technology, the music industry has undergone significant changes, with music streaming services becoming the primary means of music consumption worldwide. In South Korea, native music streaming platforms like Melon and Bugs have long dominated the market. However, the recent rapid growth of global platforms such as YouTube Music has intensified the competition. This study focuses on adolescent users to analyze the competitive relationships among major music streaming platforms in this competitive environment. Four platforms—YouTube Music, Melon, Genie Music, and Flo—were selected for the study, and a survey was conducted with youth users aged 14 to 18. Based on niche theory, five fulfillment factors were defined: music diversity, recommendation services, additional services, price value, and ease of use. The competitiveness of each platform was analyzed based on these factors. Through this analysis, the study aims to provide strategic implications for South Korean music streaming platforms to achieve sustainable success in the face of global competition. By doing so, it aims to provide strategic insights for South Korean music streaming platforms to achieve sustainable success in competition with global platforms that are gradually increasing their market share.

## 1. Introduction

With the rapid advancement of digital

technology, the music industry has entered a new era (Kim & Jung, 2021). In the past, ownership of music through physical media like CDs or downloads dominated the scene. However, in recent years, not only in Korea, but also globally, the trend of subscribing to music services via streaming has become predominant. This shift has brought significant changes in how music is consumed, allowing users to enjoy a diverse range of music in real-time without owning specific tracks (Korea Copyright Commission, 2023).

Music streaming platforms provide music in real-time over the internet, revolutionizing user experience. Against this backdrop, various streaming platforms have emerged, offering users a wide range of choices. In the early 2000s, the digital music market in South Korea was revitalized by the growth of domestic players like Melon and Bugs. However, in the 2010s, global platforms began entering the Korean market in earnest, with services like Spotify and YouTube Music emerging, leading to fierce competition with domestic music platforms.

Thanks to the rapid growth of the IT industry, South Korean music streaming platforms have dominated the domestic market for a long time. Melon and Bugs, in particular, boasted strong market shares, securing many users. However, in 2015, YouTube introduced its own music streaming service, YouTube Music, and rapidly grew by offering services targeting YouTube Premium subscribers, bringing about a shift in the landscape.

With its excellent user experience and vast music library, YouTube Music quickly emerged as a formidable competitor in the Korean market.

As a result of these changes, a decoupling phenomenon began to emerge in the South Korean music streaming market (Park & Kim, 2023). Melon, which had long held the top position in monthly active users (MAU), yielded its leading position to YouTube Music as of December 2023, and the fierce competition continues to this day. This situation suggests the need for new strategies and innovations for South Korean music streaming platforms to survive in competition with global platforms.

Therefore, this study aims to analyze the competitive relationship between major domestic and international music streaming platforms in this competitive landscape. By identifying the factors through which each platform gains an advantage, we aim to provide insights for achieving sustainable success for music streaming platforms. Through this, this study seeks to contribute to the strategic direction for South Korean music streaming platforms to maintain competitiveness in the global market and further foster innovative development.

This study aims to analyze the gratification factors of music streaming services, focusing on youth users. Both in South Korea and globally, K-POP has shown rapid growth in streaming market (Go, 2023). Youth users involved in fandom activities are being spotlighted as major targets for digital music consumption. These users are not only significant in current music consumption trends but also can be potential long-term customers as they become an adulthood. Thus, this study was composed to focus on youth users to understand their music streaming state.

To this end, this paper is organized as follows: First, we conduct a review of previous studies related to music services and discuss South Korea's digital music market and its youth users. We then analyze the competitive environment of major music streaming platforms, derive factors to evaluate the competitive advantage of each platform, and understand the competitive

relationship between platforms. Finally, based on research findings, we present strategic insights for South Korean music streaming platforms to achieve sustainable success in competition with global platforms that are gradually increasing their market share.

## **2. Theoretical background and research questions**

### **2.1. Previous research on the music streaming services**

As music listening is closely associated with users, various studies have been conducted on different topics related to the relationship between music or music streaming platforms and users. Research on music streaming services has analyzed factors influencing users' intentions to use music streaming services, satisfaction, recommendation to others, and repurchase intentions. Park(2020) analyzed the satisfaction and repurchase intentions of Korean users within the framework of the Unified Theory of Acceptance and Use of Technology (UTAUT2). Additionally, Lee et al. (2022) added recommendation systems as an additional factor, reflecting recent streaming service trends, into the seven sub-factors defined by the UTAUT2 theory. Mariana et al. (2021) conducted research by adding factors such as perceived freemium-premium fit, which are also applying the newest features of music streaming platforms. Other studies include analyzing the influence of alternative attractiveness and switching costs on the intention to switch mobile music services (Lee, 2012), the relationship between the brand value of music service platforms, service quality, and service switching intentions (Yang, 2016), and the impact of music streaming service usage motivation on active use (Nam, 2020), all targeting domestic users. These research trends are also observed in international studies. Puspitasari & Prakoso (2019) studied the factors influencing users' intentions to use subscription-based music streaming services, such as piracy, economic benefits, and hedonic benefits. Kinnally & Bolduc (2020) aimed to understand users' intentions and behaviors in using music streaming

platforms based on the theory of planned behavior and uses-and-gratifications.

There are also studies focusing more on the characteristics of individuals in music consumption. Those studies have practical implications for maintaining the music industry by considering individual or group characteristics. Belcher & Haridakis (2013) and Habe & Reić Ercegovic (2023) analyzed how motivations for music consumption are influenced by psychological and social factors. Additionally, some studies found out that there are some differences in music consumption by age (Chamorro & Cermakova, 2012; Chen & Nakayama, 2018). Im & Jung (2016) analyzed the personal characteristics of individuals in media usage through various music consumption methods (CD purchases, downloads, streaming, piracy). Based on these findings, research on emotion-based personalized music recommendation frameworks has also been conducted to suggest a practical solution for platform development (Liu, Z. et al., 2023).

In summary, continuous research has been conducted on the analysis of individual characteristics in music listening, and the factors influencing the selection and continued use of music streaming services. However, there is a lack of research on the actual advantages that music streaming services hold regarding these factors. Additionally, some existing studies have limitations in explaining the various features of recent music streaming platforms and the factors contributing to user satisfaction, as they adopt established theoretical frameworks. This study aims to newly define gratification factors influencing the use of music streaming platforms and provide a more appropriate analysis for the current time.

## **2.2. Music streaming service market in Korea**

When the digital music market began to take off in South Korea, platforms like Bugs and Melon emerged as early players and garnered attention. These platforms held significant positions in the domestic music market and

continued to be active. Subsequently, with the emergence of new platforms such as Genie Music and Flo, fierce competition unfolded within the domestic streaming market. One of the contributing factors to this competition lies in the popularity of K-pop, which has become a central element of the South Korean music industry. Alongside the growth of this genre, music streaming services have also experienced growth.

K-pop is consumed in various ways through fandom, with music streaming being a prominent fan activity aimed at boosting artists' music rankings. This reflects the efforts of K-pop fans to continuously stream the music of their favorite artists to enhance their popularity.

However, amid these circumstances, YouTube, the global player, introduced its own supplementary service, YouTube Music, in 2015, emerging as a new competitor. Through the implementation of the YouTube Premium subscription model starting in 2019, YouTube made YouTube Music available for free. Consequently, YouTube Music rapidly secured a large user base, and despite announcing a roughly 42% fee increase in December last year (Han, 2023), it recorded a monthly active user (MAU) figure of 6.5 million, surpassing Melon (6.24 million) by approximately 260,000 users, thereby claiming the position of the strongest player in the South Korean music streaming service market.

This illustrates that despite South Korea's strength in K-pop, domestic platforms have ceded the top position to global platforms. This underscores the need for South Korean native platforms to devise new strategies to compete with global platforms. Through this, South Korean music streaming services can expect to secure better competitiveness and achieve sustainable growth.

## **2.3. Youth users in music market**

Music streaming services are mostly used through mobile phones, especially among youth users who show a distinct preference for mobile-centered media consumption compared to other age

groups. Youth users spend a significant amount of time at school or academies, leading to their media consumption being predominantly centered to mobile phones. This signifies that youth users, compared to adults, face more constraints in terms of time and space, thus engaging in various online activities through mobile devices (Lee et al., 2010). According to the "2023 Music User Survey" report published by the Korea Creative Content Agency, when asked about the devices used for music consumption (with multiple responses allowed), 90.5% of all respondents answered that they use smartphones, with an even higher usage rate of 92.5% among teenagers. Additionally, regarding the situation or place of music listening, teenage respondents showed a significantly higher proportion, at 19.8%, of listening to music "while working (studying) or during breaks," compared to the overall average of 10.5%. Analyzing the types of activities during adolescent leisure time, apart from communication tools (such as calls, messages), it can be observed that listening to music and watching videos are the most common activities (Kim & Kim, 2019).

In addition, it is noteworthy that teenage users are more biased in their music consumption compared to other age groups. They show a 61.2% utilization rate for "dance/idol music" (Korea Creative Content Agency, 2023), which can act as an important factor when looking at the development of music streaming services in Korea. Judging by Melon's recent situation of securing users by opening a two-way communication channel for fans and artists to compete with YouTube Music (Kim, 2024), it can be inferred that fandoms of K-pop artists still play a crucial role as the primary user base on streaming platforms. Considering these characteristics of youth users, it can be confirmed that the music streaming services need to pay close attention to them.

## 2.4. Niche Theory

Niche theory has been primarily utilized in the field of ecology, but recently, it has been actively applied in the media domain as well. This

theory is based on the concept that when a new entity enters an existing environment, competition arises for limited resources. This principle can also be applied in the media environment. For instance, when a new media service emerges in the market, it competes with existing media services for a limited audience or user base.

In this regard, many recent studies have applied the competitive exclusion principle to analyze the service competition within the media environment. For example, Jung et al. (2023) conducted an analysis of the satisfaction factors in news media consumption, thereby identifying the competitive relationships among various media services such as TV, online news portals, YouTube, and KakaoTalk. Additionally, Chen Y. N. K. (2019) analyzed the level of user satisfaction between traditional TV and the recently emerged OTT platforms in Thailand, thereby confirming competitive relationships. Moreover, in a study by Jeong et al. (2023) within the Korean trot music market, the competitive relationships among singers were analyzed, demonstrating the application of the competitive exclusion principle in more specialized areas within the media ecosystem.

Thus, it is important to utilize the competitive exclusion principle in analyzing the competition among various services within the media environment. Through this analysis, we can gain insights into which media services provide greater satisfaction to specific user groups and devise strategies to enhance competitiveness accordingly.

## 2.5. Research Questions

After reviewing prior research and examining the present landscape of the Korean music streaming market, it has become apparent that there is a pressing need for further investigation in several key areas. Firstly, the emergence of global giants in the music streaming industry has brought about a new challenge for domestic platforms, necessitating a deeper understanding of the dynamics of competition in

terms of user gratification factors. However, there remains a gap in the literature regarding comprehensive studies in this domain. Secondly, while research on the adoption and continued usage of music streaming services has been ongoing, the majority of studies have relied on established theoretical frameworks, highlighting the necessity for a more nuanced exploration of novel factors that align with recent shifts in the market landscape. Lastly, with the growing trend towards personalized content consumption, there is a critical need to delve into user segmentation to better grasp evolving user characteristics. In light of these observations, the research questions outlined in this study have been formulated to address these gaps and contribute to a deeper understanding of the complexities within the Korean music streaming market.

**RQ1:** What are youth users' gratification resources of music streaming services?

**RQ2:** How do the niche values (niche breadth, niche overlap, competitive superiority) differ from youth users' gratification resources between music streaming platforms?

### 3. Methodology

#### 3.1. Case selection

In this study, 4 music streaming platforms were selected to be analyzed; YouTube Music, a global platform, and Melon, Genie Music, and FLO, which are native Korean platforms. According to statistics from Mobile Index, which conducts DMP-based app analysis, YouTube Music's MAU (6.5 million) surpassed Melon's MAU (6.24 million) for the first time in December 2023. During the same period, Genie Music was the third largest platform (2.93 million), followed by FLO (2.02 million), Vibe (0.6 million), and Bugs (0.41 million). Based on this ranking, music streaming platforms with more than 2 million MAUs were selected—YouTube Music, Melon, Genie Music, and FLO—as case studies for our research.

**Table 1**

**Music streaming services selected for the study**

	YouTube Music	MelOn	Genie Music	FLO
<b>Type</b>	Music streaming service provided by YouTube	Music streaming service	Music streaming service	Music streaming service
<b>Operation</b>	YouTube LLC	Kakao Entertainment	Genie Music	Dreamus Company
<b>Launch</b>	2015.11	2004.11	2011.12 (Official Launch: 2012.04)	2015.01
<b>Subscription</b>	-Music Premium 11,990 won/month  -YouTube Premium 14,900 won/month	-Streaming subscription, music download subscription, language learning subscription, and other options are available.  -Unlimited listening monthly subscription: 7,900 won/month	-11 options available including streaming subscription, music download subscription  n, music download subscription  h	-30% discount benefit offered by T-membership  -Mobile unlimited listening - \$7,900/month

### 3.2. Gratification factors

#### 3.2.1. Defining gratification factors

For the analysis based on the theory of niche, it is necessary to establish gratification factors. To do this, we adopted and modified factors from previous studies that identified important factors influencing users' choices of music streaming platforms, adjusting them to fit the characteristics of music streaming platforms (Barata & Coelho, 2021). Additionally, considering the latest trends in music streaming platforms, we selected some factors derived from business model analyses that could be considered from the user's perspective (Park & Kim, 2023). Furthermore, we examined factors from the film industry, which is similar to the music streaming service in terms of content ownership, and adapted them to fit the music market (Jung & Park, 2021). The defined gratification factors are as follows.

**Price value.** Price value refers to the cognitive trade-off between the benefits and costs perceived by users when utilizing a particular technology or service. This factor is defined as one

that can influence user behavior in the UTAUT2 theory and has been analyzed as a significant influence in studies by Mariana et al. (2021) and Park (2020). Besides this theory, price value has been identified as a major factor affecting user intention to use in various studies related to paid services.

**Recommendation system.** Music streaming services have evolved beyond simply playing music chart rankings or creating personal playlists. Recently, they have added features that automatically generate playlists tailored to the user's preferences and listening history. This reflects the trend of services aiming to provide customized content to customers (Lee et al., 2022). In this study, we define this as the recommendation system and aim to examine whether it provides user gratification through music recommendations that meet users' needs.

**Music diversity.** Music diversity is a factor that examines whether a platform possesses a wide range of music across different genres, from previously released tracks to the latest releases, and whether unreleased tracks are also available. In research related to film services, there is a desire to watch the latest movies (Jung & Park, 2021), but in the case of music, there is a need for previously released tracks as well. Therefore, this factor is defined to encompass all these aspects.

**Ease of use.** Ease of use examines how easy it is to use the music streaming platform, including the stability of music quality and the overall convenience for users. It is a key factor not only for music streaming platforms but also for various media services, and has been utilized in numerous studies. Through this, it is possible to analyze the factors affecting user satisfaction and intention to use.

**Optional services.** The main function of a music streaming service is music playing. However, within music streaming platforms, other services are also provided. These include the ability to watch music or performance videos, as well as offering communities where users can interact. Additionally, music streaming platforms provide the functionality to share music content to external platforms, enabling social interaction for users. Previous research on music streaming platforms has not defined these factors as influencing platform usage. However, as mentioned earlier, native platforms have started offering services

beyond streaming to survive in the competitive market, and these factors are expected to impact user gratification, especially to youth users. To this end, the term "optional services," encompassing functions beyond the primary offering services of a platform, is borrowed from the research of Buyya, R. et al. (2009).

**Table 2**  
Gratification factors of music streaming services

Gratification factor	Definition
Price value	Economic rationality regarding the costs associated with music streaming
Recommendation system	Recommendation based on user's music preferences and listening history
Music diversity	Provision availability of a wide range of music in terms of genre, era, etc.
Ease of use	Ease of access, provision of stable sound quality, etc. of use for music listening
Optional services	Provision of optional services beyond the primary purpose of music listening on the platform

### 3.2.2. Niche analysis

Niche analysis is conducted through the analysis of niche breadth, niche overlap, and competitive superiority. Niche breadth is a measure of how extensively an organism utilizes resources within a given environment. Based on survey results, scores are standardized, ranging from a minimum of 0 to a maximum of 1. Scores closer to 0 indicate limited resource utilization, while scores closer to 1 suggest the use of diverse resources.

**Table 3**  
Niche breadth formula

Formula	Variables definition
$B = \frac{\sum_{n=1}^k \frac{[\sum_{k=1}^k GO_n] - KI}{K(u-1)}}{N}$	u, l = upper and lower bounds of a scale
	GO = gratification scores obtained for each item
	N = Number of respondents using the media
	n = respondents
	K = number of items included in each dimension
	k = item

Niche overlap indicates the similarity in

resource utilization between two organisms. This allows us to determine whether the two organisms have a mutually substitutive relationship for the same resources or a complementary relationship. The closer the value is to 0, the more indicative it is of the former, while a value closer to 1 suggests the latter.

**Table 4**  
Niche overlap formula

Formula	Variables definition
$O_{i,j} = \frac{\sum_{n=1}^N \sqrt{\sum_{k=1}^K \frac{(GO_i - GO_j)^2}{K}}}{N}$	<p>i, j = Media i, j</p> <p>GO = satisfaction scores obtained for Media i and j in each item</p> <p>n = respondents</p> <p>K = number of items included in each dimension</p> <p>k = item</p>

Competitive superiority is an indicator that measures the relative competitiveness of competing organisms. Competitive superiority is verified through t-test analysis for statistical significance. Significance in this result means that one organism holds a superior position over the other organism in relation to satisfying resources between the comparative groups.

**Table 5**  
Competitive superiority formula

Formula	Variables definition
$S_{i>j} = \frac{\sum_{n=1}^N \sum_{k=1}^K (m = i > j)}{N}$	<p>i, j = Media i, j</p> <p>mi&gt;j = sum of scores of items where Media i was rated higher than Media j</p>
$S_{j>i} = \frac{\sum_{n=1}^N \sum_{k=1}^K (m = j > i)}{N}$	<p>mj&gt;i = sum of scores of items where Media j was rated higher than Media i</p> <p>N = number of respondents using both Media i and Media j</p> <p>n = respondents</p> <p>K = number of items included in each dimension</p> <p>k = item</p>

### 3.2.3. Data collection

In this study, an online survey was

conducted through the survey agency Embrain, targeting individuals nationwide aged 14 to 18 from June 4 to June 7, 2024. The survey participants were those who had used at least two of the following four platforms—Melon (ML), Genie Music (GM), FLO (FL), and YouTube Music (YM)—in the past three years. Consequently, responses from a total of 300 individuals were analyzed, with their demographic characteristics presented in Table 6. The respondents comprised 150 males (50%) and 150 females (50%). In terms of age distribution, 125 respondents (41.7%) were aged 14-15, and 175 respondents (58.3%) were aged 16-18.

**Table 6**  
Demographic information

Measure	Frequency	Rate (%)
Gender	Male	150
	Female	150
Age	14 - 15	125
	16 - 18	175

A brief survey on the usage of music streaming services was conducted among the respondents. Regarding the duration of music streaming service usage, 71 respondents (23.7%) reported using the services for more than one year but less than two years, 63 respondents (21%) for more than two years but less than three years, 55 respondents (18.3%) for more than five years, 53 respondents (17.7%) for less than one year, 38 respondents (12.7%) for more than three years but less than four years, and 20 respondents (6.7%) for more than four years but less than five years. In terms of usage frequency, 176 respondents (58.7%) indicated they use the services daily, 47 respondents (15.7%) use them three to four times a week, 46 respondents (15.3%) use them five to six times a week, and 31 respondents (10.3%) use them one to two times a week. As for the duration of use per time, 141 respondents (47%) use the services for more than one hour but less than two hours, 60 respondents (20%) for more than two hours but less than three hours, 52 respondents (17.3%) for less than one hour, and 47 respondents (15.7%) for



more than three hours.

**Table 7**

Demographic information of music streaming service use

Measure	Frequency	Rate (%)
Duration of music streaming service usage	less than 1 year	53
	more than 1 year but less than 2 years	71
	more than 2 years but less than 3 years	63
	more than 3 years but less than 4 years	38
	more than 4 years but less than 5 years	20
	more than 5 years	55
	1~2 times a week	31
	3~4 times a week	47
Frequency of music streaming service usage	5~6 times a week	46
	everyday	176
Time duration of music streaming service usage per time	less than 1 hour	52
	more than 1 hour but less than 2 hours	141
	more than 2 hours but less than 3 hours	60
	more than 3 hours	47

To examine the usage status of specific platforms, respondents were asked about their use of the ten platforms currently available in South Korea (Melon, Genie Music, FLO, Bugs, Kakao Music, Vibe, Soribada, YouTube Music, Spotify, Apple Music). When asked about the music platforms they had used in the past three years (multiple selections allowed), Melon was the most frequently used, with 279 respondents (93%), followed by YouTube Music with 242 respondents (80.1%), Spotify with 148 respondents (49.3%), FLO with 117 respondents (39%), Genie Music with 108 respondents (36%), Apple Music with 96 respondents (32%), Kakao Music with 59

respondents (19.7%), Vibe with 46 respondents (15.3%), Bugs with 35 respondents (11.7%), and Soribada with 28 respondents (9.3%).

When asked about the primary platform they currently use for music streaming, 131 respondents (43.7%) selected Melon, followed by YouTube Music with 85 respondents (28.3%), Spotify with 32 respondents (10.7%), Apple Music with 18 respondents (6%), FLO with 16 respondents (5.3%), Genie Music with 13 respondents (4.3%), and Bugs with 3 respondents (1%). Regarding the duration of using their primary platform, 92 respondents (30.7%) reported using it for less than one year, 89 respondents (29.7%) for more than one year but less than two years, 65 respondents (21.7%) for more than two years but less than three years, 29 respondents (9.7%) for more than three years but less than four years, and 10 respondents (3.3%) for more than four years but less than five years. In terms of the subscription model for their primary platform, 257 respondents (85.7%) indicated they use a monthly subscription for streaming, 29 respondents (9.7%) use individual song downloads, and 14 respondents (4.7%) use a monthly subscription for downloads.

The survey questions in this study covered demographic characteristics and user gratification factors. Questions related to user gratification were organized based on the uses and gratifications theory and previous research on music streaming. The survey items assessed how well each service met these dimensions using a Likert scale ranging from 1 to 7.

## 4. Results

### 4.1. Factor analysis of satisfaction factors for four music streaming services

To examine the competitive relationships among the 4 platforms through niche analysis, a factor analysis and reliability verification of the mean values of user gratification factors for music streaming services were first conducted. The factor analysis, using the principal component analysis method with Varimax rotation, identified five

factors. Factor 1 was named ‘price value (PV)’, Factor 2 was named ‘recommendation system (RS)’, Factor 3 was named ‘music diversity (MD)’, Factor 4 was named ‘ease of use (EU)’, and Factor 5 was named ‘optional services (OS)’. The results of the analysis of these factors are presented in Appendix 1

## 4.2. Result of niche analysis

### 4.2.1. Result of niche breadth

The niche breadth for the five factors of Melon, Genie Music, FLO, and YouTube Music is shown in Table 8 Melon exhibited the highest niche breadth in music diversity (.846), followed by ease of use (.790), recommendation system (.776), optional services (.692), and price value (.596). Similarly, Genie Music also showed the highest niche breadth in music diversity (.759), followed by ease of use (.722), recommendation system (.693), price value (.645), and optional services (.638). FLO's niche breadth was highest in music diversity (.777), followed by ease of use (.772), recommendation system (.770), price value (.696), and optional services (.665). Finally, YouTube Music demonstrated the highest niche breadth in music diversity (.891), followed by ease of use (.824), recommendation system (.814), optional services (.768), and price value (.584).

**Table 8**

Music streaming services’ niche breadth in Korean streaming market among youth users

	PV	RS	MD	EU	OS
ML	.596 (3)	.776 (2)	.846 (2)	.790 (2)	.692 (2)
GM	.645 (2)	.693 (4)	.759 (4)	.722 (4)	.638 (4)
FL	.696 (1)	.770 (3)	.777 (3)	.772 (3)	.665 (3)
YM	.584 (4)	.814 (1)	.891 (1)	.824 (1)	.768 (1)

*Note.* 0 = Minimum Niche Breadth, 1 = Maximum Niche Breadth, the number in parentheses indicates the rank of niche breadth between services for each factor.

Overall, examining the niche breadth reveals that YouTube Music generally shows a large niche breadth in factors other than price value. This indicates that YouTube Music provides broad user satisfaction among youth users. It is also evident that all four services have the highest niche

breadth values in music diversity. Furthermore, when looking at the niche breadth rankings within this factor, the gap between the first place (YouTube Music) and the second place (Melon) (.045) is the largest compared to other factors.

### 4.2.2. Result of niche overlap

The niche overlap values between services can be found in Table 9. A smaller niche overlap value indicates a higher degree of niche overlap.

**Table 9**

Music streaming services’ niche overlap in Korean streaming market among youth users

	PV	RS	MD	EU	OS
ML – GM	1.332 (3)	1.131 (6)	.942 (4)	1.079 (5)	1.101 (2)
ML – FL	1.337 (4)	.963 (2)	.786 (2)	.928 (2)	1.119 (3)
ML – YM	1.583 (5)	1.111 (5)	.836 (3)	.994 (3)	1.335 (5)
GM – FL	.773 (1)	.725 (1)	.577 (1)	.639 (1)	.785 (1)
GM – YM	1.313 (2)	1.107 (4)	1.007 (6)	1.070 (4)	1.149 (4)
FL – YM	1.663 (6)	.996 (3)	.964 (5)	1.080 (6)	1.344 (6)

*Note.* 0 = Maximum Niche Overlap, 6 = Minimum Niche Overlap, the number in parentheses indicates the rank of niche overlap between services for each factor.

In terms of price value, the highest niche overlap was observed between Genie Music and FLO (.773). This was followed by Genie Music and YouTube Music (1.313), Melon and Genie Music (1.332), Melon and FLO (1.337), Melon and YouTube Music (1.583), and FLO and YouTube Music (1.663). The high overlap between Genie Music and FLO can be attributed to both services being operated by telecom companies, offering similar bundling benefits with telecom plans.

For the recommendation system factor, Genie Music and FLO (.725) also showed the highest overlap, followed by Melon and FLO (.963), FLO and YouTube Music (.996), Genie Music and YouTube Music (1.107), Melon and YouTube Music (1.111), and Melon and Genie Music (1.131).

In the music diversity factor, Genie Music

and FLO (.577) had the highest overlap. This was followed by Melon and FLO (.786), Melon and YouTube Music (.836), Melon and Genie Music (.942), FLO and YouTube Music (.964), and Genie Music and YouTube Music (1.007).

For ease of use, Genie Music and FLO (.639) again had the highest overlap. This was followed by Melon and FLO (.928), Melon and YouTube Music (.994), Genie Music and YouTube Music (1.070), Melon and Genie Music (1.079), and FLO and YouTube Music (1.080).

Regarding optional services, Genie Music and FLO (.785) showed the highest overlap. This was followed by Melon and Genie Music (1.101), Melon and FLO (1.119), Genie Music and YouTube Music (1.149), Melon and YouTube Music (1.335), and FLO and YouTube Music (1.344).

Overall, Genie Music and FLO showed the highest niche overlap across all factors. This suggests that youth users perceive little difference between these two services not only in price value but also in recommendation system, music diversity, ease of use, and optional services. The overlap level between Genie Music and FLO in terms of price value was significantly higher compared to other platform comparisons. YouTube Music showed lower niche overlap in the recommendation system compared to the Korean domestic platforms Melon, Genie Music, and FLO, indicating a distinctive recommendation system. In the music diversity aspect, YouTube Music had lower overlap with Genie Music and FLO, implying differences in music library acquisition. Compared to these two domestic platforms, Melon showed high overlap with YouTube Music in music diversity. In ease of use, Genie Music and FLO showed relatively higher niche overlap compared to other platform comparisons. In optional services, the overlap between Genie Music and FLO was also significantly higher than other platform comparisons. YouTube Music demonstrated lower niche overlap in optional services compared to the other three domestic platforms.

#### **4.2.3. Result of competitive superiority**

Through the preceding niche overlap analysis, we can roughly understand the competitive relationships among platforms in the South Korean music streaming market among youth users. However, it is difficult to clearly identify the relative advantages. To address this, a t-test was conducted to determine which gratification factors each music service has a relative advantage in. The results of the competitive advantage analysis between services are shown in Appendix 2.

The competitive superiority analysis between Melon and Genie Music revealed significant differences in all gratification factors. Melon demonstrated greater competitiveness than Genie Music in factors other than price value, specifically in recommendation system (Competitive Superiority: CS=3.111), music diversity (CS=2.091), ease of use (CS=2.404), and optional services (CS=1.899). In contrast, Genie Music showed a competitive advantage over Melon in price value (CS=2.889).

In the competitive superiority comparison between Melon and FLO, significant differences were observed in all factors except for the recommendation system. Melon showed a high competitive advantage in music diversity (CS=1.667), as well as competitiveness in ease of use (CS=1.833) and optional services (CS=1.647) over FLO. FLO, on the other hand, demonstrated a significantly higher competitive advantage in price value (CS=3.137) compared to Melon.

The competitive superiority analysis between Melon and YouTube Music showed significant differences in all factors except for price value. YouTube Music held a competitive advantage over Melon in the four factors that showed significant differences: recommendation system (CS=2.365), music diversity (CS=1.599), ease of use (CS=2.068), and optional services (CS=2.356).

The competitive superiority comparison between Genie Music and FLO indicated no significant differences in any factors. This could suggest that there are no substantial competitive

differences between Genie Music and FLO.

The competitive superiority analysis between Genie Music and YouTube Music revealed significant differences in all factors except for price value. YouTube Music showed a substantial competitive advantage over Genie Music in recommendation system (CS=2.781), music diversity (CS=2.164), ease of use (CS=2.575), and optional services (CS=2.507).

In the competitive superiority comparison between FLO and YouTube Music, significant differences were found in all gratification factors. FLO demonstrated considerable competitiveness in price value (CS=4.291) compared to YouTube Music. However, YouTube Music showed higher competitiveness than FLO in the other factors: recommendation system (CS=2.314), music diversity (CS=2.395), ease of use (CS=2.628), and optional services (CS=2.791).

As a result, it was found that YouTube Music shows no significant difference in terms of price value compared to Korean native platforms Melon, Genie Music, and FLO. However, it holds a competitive advantage in all other gratification factors. This suggests that the diverse services provided by YouTube Music to youth users are generally superior to those offered by native Korean platforms. When comparing within Korean native platforms, Melon appears to have a competitive advantage over Genie Music and FLO in terms of all factors except price value (excluding the recommendation system in the comparison between Melon and FLO, as  $p > .05$ ). Therefore, it can be stated that Melon still maintains its superiority among native platforms.

## 5. Conclusion

This study conducted a comparative analysis using niche analysis, typically employed in the media or content fields, to examine the competitive relationship of music streaming services. While there have been various prior studies related to the music market, this study offers a new perspective by analyzing the competitive superiority regarding the gratification factors

provided by the services. Additionally, this study identified and analyzed new gratification factors reflecting recent changes in streaming services, which were not commonly used in prior studies on media user gratification, thereby adding significance. Furthermore, the study differentiated itself by segmenting user demographics. Past research primarily targeted the overall user, but as media platforms increasingly emphasize personalized services, considering individual characteristics has become crucial. Thus, this study aimed to provide new insights by focusing on youth users, who are considered as a primary target in the music streaming market, and examining the gratification factors and competitive advantages of streaming services for this demographic.

Overall, YouTube Music has demonstrated a wide range of user gratification among youth users in all aspects except for price value, while also maintaining a competitive superiority compared to other services. While all services utilize diverse resources in terms of music diversity, YouTube Music appears to utilize resources more extensively than other services, particularly in comparison to other gratification factors. Among the services, Genie Music and FLO showed the highest level of overlap. These two services exhibited the highest level of overlap across all factors, possibly due to their status as latecomers in the Korea's domestic music streaming market, initially attracting users based on telecom subscriptions and subsequently growing with similar service offerings. In comparison to domestic services, YouTube Music showed lower overlap in terms of the recommendation system and optional services. This suggests that YouTube Music, as a global player, differentiates itself from domestic competitors in these two factors. The analysis of competitive advantage revealed that such differentiation could indeed translate into a competitive edge. While YouTube Music does not show significant differences in price value compared to domestic services, it maintains a competitive advantage in all other factors. This indicates that YouTube Music has consistently

secured its competitiveness in the Korean music streaming market by offering various distinguishing factors to youth users, even within the domestic market.

This study aims to provide practical implications for achieving sustainable success in the music streaming market based on the results. Local Korean platforms such as Melon, Genie Music, and FLO have long maintained top positions in the Korean music streaming market. Unlike other media services, they have not faced significant threats from global services, allowing them to retain their positions even when global players like Spotify and Apple Music entered the Korean market. However, YouTube Music has rapidly increased its market share despite the weak presence of other global music services, establishing a persistent competitive relationship with Melon. In this evolving market landscape, local platforms need to strengthen their competitiveness to retain and attract users. Companies have made various attempts to enhance user satisfaction and differentiate their services, as evidenced by Park & Kim (2023), who analyzed the strategies of YouTube and Melon. This study sought to determine whether these strategies translated into competitive advantages from the user's perspective, focusing on the primary user base of youth users to assess any shifts in market dominance. The analysis revealed that although YouTube Music offers superior services in several areas compared to local platforms, it still does not significantly surpass Melon in market share. Therefore, for local providers to achieve sustainable success in the competitive market, they must improve services in areas where they are currently lagging, as identified in this study. Additionally, they should consider changes to their business models before global platforms completely overshadow them.

To compete effectively against YouTube Music, local businesses need to consider service improvements and operational strategies. Local platforms must enhance their recommendation systems and optional services to gain a competitive edge. Conducting internal satisfaction surveys on features like automatic playlist generation or exploring additional optional services within the music streaming service could be beneficial. If services have high redundancy and offer similar features to users, merging them into a single service

could be considered. Given the nature of streaming services, increasing user numbers can boost both market share and revenue. In the Korean market, OTT services such as TVING and Wavve have shown similar movements by merging to develop new strategies in response to the competitive advantage held by the global platform Netflix (Jung & Park, 2021; Jo, 2024). If such mergers occur within local music streaming services, it would enable them to provide higher quality services in terms of satisfaction factors where they currently lag behind YouTube Music, such as the recommendation system. By combining user preferences and accumulated music data from each service, it is anticipated that more refined and sophisticated services can be delivered. For instance, in the case of recommendation systems, it would be possible to offer users more satisfying playlists generated based on their usage data.

This study focused on youth users as the primary user base, considering that music streaming consumption predominantly occurs via mobile phones, suggesting that similar trends might be observed across other age groups. However, as with this study, which introduced new factors to assess satisfaction with music streaming services, other age groups might present different critical satisfaction factors. Factors that showed significant differences (or not significant) among youth users could yield different results in other demographics. For instance, while price value did not show a significant competitive advantage among youth users, this might be attributed to their lack of economic activity. When applied to adults who are economically active, price value might emerge as a significant factor.

Based on these implications, the limitations of this study can be outlined as follows. The limitations of this study are as follows. First, the study utilized data limited to a specific age group, making it difficult to generalize the findings to users of other age groups who use music streaming services. Youth users have different characteristics from adult users due to restrictions in economic activity and mobility. Therefore, conducting competitive superiority analysis for other age groups would aid in tailoring service

improvements. Second, the study focused on platforms with over 2 million MAUs in Korean music market, leading to a lack of comparison with other music streaming platforms operating in the market. For instance, including platforms like Spotify, which currently has a lower market share in Korea but is the global leader in MAUs, would help identify emerging competitors and enhance competitive strategies proactively. Lastly, while it is possible to identify competitive advantages in the gratification factors of music streaming services, it is challenging to discern the competitive advantages among the specific elements influencing these factors. For example, detailed information on why YouTube Music's recommendation system is superior to Melon's for youth users is not readily available. To set more precise directions for service improvements, it would be beneficial to focus on the factors where competitive advantage is lacking and supplement with detailed user satisfaction research based on specific metrics.

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## Appendix 1

### Factor analysis of gratification factors for the 4 music streaming services

Item	Factors				
	1 PV	2 RS	3 MD	4 EU	5 OS
Compared to other music streaming platforms, the subscription fee is affordable.	.888	.119	.143	.118	.191
The subscription fee of the music streaming platform I am using is reasonable.	.860	.124	.190	.052	.193
It is economical because I can get discounts through telecom discounts, bundling, etc.	.840	.267	.032	.123	.241
It is economical because there are various subscription plans to choose from.	.824	.187	.004	.242	.193
The music streaming platform recommends music by specific artists based on my musical preferences.	.210	.803	.286	.273	.184
The music streaming platform recommends music from specific genres (e.g., K-POP, ballads) based on my musical preferences.	.207	.788	.323	.293	.182
The music streaming platform recommends music that I like.	.248	.757	.349	.258	.225
The music streaming platform recommends music suitable for specific moods or situations (e.g., music good for exercising) based on my musical preferences.	.237	.734	.320	.170	.310
The music streaming platform provides a sufficient number of tracks.	.111	.281	.823	.245	.190
The music streaming platform offers tracks from various periods.	.108	.326	.823	.249	.136
The music streaming platform offers a variety of music genres.	.087	.329	.820	.312	.104
It is easy to use the music streaming platform without interruptions or buffering.	.246	.260	.262	.711	.248
The music streaming platform can be accessed through various devices.	.107	.231	.519	.681	.166
It is convenient to search for desired music within the music streaming platform.	.154	.333	.463	.651	.150
The music streaming platform provides an optimized design for music listening.	.241	.484	.286	.630	.203
The sharing function of the music streaming platform makes it easy to communicate with others on different platforms (e.g., SNS).	.354	.253	.102	.158	.774
The community within the music streaming platform makes it easy to communicate with other users.	.402	.284	.084	.138	.769
The music streaming platform provides content created by other users (e.g., playlists).	.194	.151	.342	.254	.651
Eigen value	3.629	3.440	3.264	2.465	2.215
Explained Variance (%)	20.160	19.110	18.135	13.695	12.306
Cumulative Variance (%)	20.160	39.270	57.406	71.101	83.406

## Appendix 2

Music streaming services' competitive superiority in Korean streaming market among youth users

	PV		RS		MD		EU		OS	
	S-score	t-Value	S-score	t-Value	S-score	t-Value	S-score	t-Value	S-score	t-Value
ML>GM	1.546	-.2721	3.111	5.036	2.091	5.936	2.404	3.667	1.899	3.534
ML<GM	2.889	**	.838	***	.354	***	1.061	***	.838	**
ML>FL	1.314	-3.829	1.824	1.832	1.677	5.767	1.833	2.105	1.647	2.104
ML<FL	3.137	***	1.255		.284	***	1.186	*	1.069	*
ML>YM	2.987	1.374	1.347	-3.406	.563	-5.403	1.167	-3.452	1.023	-5.074
ML<YM	2.405		2.365	**	1.599	***	2.068	**	2.356	***
GM>FL	.976	-1.042	.952	-1.505	.643	-.313	1.095	.545	.905	-.456
GM<FL	1.548		1.476		.738		.905		1.143	
GM>YM	2.740	1.531	.945	-4.242	.507	-4.676	.945	-4.502	.589	-4.822
GM<YM	1.781		2.781	***	2.164	***	2.575	***	2.507	***
FL>YM	4.291	3.674	1.000	-3.032	.186	-6.493	.930	-3.986	.733	-4.592
FL<YM	1.616	***	2.314	**	2.395	***	2.628	***	2.791	***

Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$



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