Research on Analyzing the Commercial Value of AI and Kwangya World View to SM Entertainment based on AESPA’s Musical Concept

Huiyin Weng

hw2834@nyu.edu

Tisch, New York University, New York, 10012, United States

Abstract. Since AI plays an important role in the development of human beings nowadays, it is becoming a topic that people want to consider. For example, people are deeply dependent on high-precision AI tools to analyze data. Similarly, SM Entertainment also captured the importance of AI, creating the girl group AESPA and building the Kwangya worldview. Although SM Entertainment already has famous idol groups such as NCT and Red Velvet, it still chooses to take the risk of building, Kwangya, a brand-new concept. Some scholars studied the reasons that AESPA stands out among many idol groups from the visual design aspect and also researched AESPA’s influence on fans, but there is still a research gap in finding the business value of AESPA and Kwangya on SM Entertainment. Therefore, the article studies compare different idol groups’ visual concept settings and idol role positionings, and it found that AESPA is the most suitable team for the Kwangya world because of its clear and definite role positioning. The Kwangya worldview is also more attractive than other groups’ concepts. Also, the close connection with AI allows AESPA to get more cooperation opportunities. Therefore, the company is willing to try further building Kwangya. For the better development of the company, it can pay more attention to whether the concept setting is in line with the group style. In addition, allocating every idol’s personal resources equally is also a way to help the group develop.

1. Introduction

1.1. Research background

With the development of high technology, the rapid growth of artificial intelligence (AI) has aroused people’s attention. Specifically, AI is being applied to many fields, such as the chatbot program – Chatgpt. It utilizes human daily communication dialogues data as a foundation and then operates thousands of times in order to mimic the way and tone “real” human beings communicate with each other. Moreover, the topic of virtual reality is also highly utilized in the movie production and entertainment industry. For example, the release of Ready Player One and Free Guy was brought into focus. Shen found, “On China’s most popular review site Douban, the movie scores a 9.0, with over 263,000 people submitting a rating [1].” It can be seen that artificial technology will be a sustainable development tool in society and also will play an important role in human civilization. Among those, one of the top three entertainment companies in Korea, SM Entertainment Co., Ltd., also followed up the virtual reality trend. In 2020, SM Entertainment established the South Korean girl group AESPA, the first Idol group with its ai member (ae). Then, SM Entertainment also acquired a post-production company and founded the company named “KWANGYA STUDIO” [2].

1.2. Literature review

After that, in order to enrich the background of AI virtual reality one step further, SM Entertainment formed the program called SM Culture Universe (SMCU). The virtual world is named Kwangya. In Kwangya, there are “ae”, created by the digital information uploaded by human beings and viewed as the Avatars of people in real life [3]. The program intends to create an innovative stage for the symbiosis of virtual avatars and real humans. According to the article “AESPA: The Digital Music Era and Its Impact on Generation Z”, Li proposed that “aeon” is also a distortion for civilization. Under the impact of the new generation’s culture and environment, science and technology are derived into music and daily life. Life is not just life; music is not just music for social entertainment [4].”

In particular, Li found that the South Korean girl group AESPA is beneficial for diversifying the understanding of AI technology, which means AI does not restrain under sophisticated programming languages, such as Chatgpt, and can be used in a broader field. Also, although it is sometimes difficult to immerse AI concepts in real life, AESPA still plays an important role in changing people’s stereotypes of AI technology. What’s more, Kungwanjerdsuk and Rhoades analyzed
that the concept of Kwangya solves the problem of distance. Especially during the covid 19 pandemic, AESPA can communicate with fans in different ways via online fan meetings or the virtual reality Kwangya fan club. This allows them to avoid the limitations brought about by the epidemic to a greater extent, and the brand-new creative concept Kwangya also allows AESPA’s fanbase to be strengthened even during difficult times [5]. In addition to the AI technology mentioned above, AESPA stands out because of the dissemination and application of cross-media. Chen and Wei found that AESPA uses ae characters to achieve cross-media applications and brings viewers a more immersive experience. However, applying AI skills may only stay at this stage because fans are more inclined to recreate the original work, such as cover dances, rather than really experience the virtual world [6].

To conclude, most scholars have studied the impact of Kwangya on Generation Z and discussed the innovations in visual and musical concepts. In contrast, few scholars focus on how the creation of Kwangya can affect SM Entertainment. Especially when Red Velvet’s eerie style prevailed in the 21 centuries, and the novel and eye-catching Neo technology culture (NCT) project already generates a large amount of traffic for SM Entertainment, what is the advantage made SM Entertainment insist on launching the SMCU program and the girl group with four ae members that no one proposed before. What’s more, does the emergence of ae concept call back the current popular y2k elements and the extension of the metaverse and cyborg elements? In addition, whether the potential of AESPA is worth the effort and investment of SM Entertainment will be discussed further. Therefore, SM Entertainment, as the first entertainment company that combines the virtual world with the cultural and entertainment industry, significantly influences and paves the way for AI data programming to penetrate the entertainment industry in the future. Also, the concept of Kwangya, serves as a representative case and is a good starting point for people to think about the future world of information and data flooding and what should be done if the virtual world appears. Nevertheless, whether the ambition of AI character creation is just a short-lived setting for SM Entertainment will be discussed in this article.

1.3. Research framework

In general, the article aims to help SM Entertainment further analyze the business value of the concept of Kwangya based on the girl group AESPA and explore the sustainability of the metaverse concept in the nearly saturated Korean entertainment industry. First, the article examines the value of AESPA from several aspects--released music videos and SMCU episodes. To be specific, analysis from the perspective of animation visual effects and conceptual analysis. Then, the comparison with the other two Idol groups, Red Velvet and NCT. It is, lastly summarizing the benefit of building a whole Kwangya worldview along with the evolution strategy of SM Entertainment.

2. Case description

Being one of the pioneers in producing Hallyu, SM Entertainment provides many representative suggestions and strategies for the future development of other Korean entertainment companies. For instance, SM Entertainment created a systematic idol training system, which includes exploring and recruiting suitable trainers worldwide. It also emphasizes diverse development, such as learning multiple languages in order to prepare for international performance, studying etiquette, and cultural accomplishment. Besides, the company focuses on the quality of songs. Each team under the company has its concept design. The well-developed system helps the company occupy an irreplaceable position in the Korean entertainment and music industry [7].

So far, there are ten active idol groups under SM Entertainment, and each group has gained a high reputation internationally. Hence, it is an authoritative company worthy of analysis. As early as 2014 to 2016, SM Entertainment successively launched two idol groups, NCT and Red Velvet. To further introduce, Red Velvet has five members Irene, Seulgi, Wendy, Joy, and Yeri. Music was mainly the prevailing vitality style in the team’s early days. In the later period, it became popular in Korea by trying dark and eerie music styles. Among them, psycho’s music video got 362M views on YouTub [8]. It can be said that the reason for the success of Red Velvet is inseparable from the profundity of MV(music video) content.

2016 the company launched the Neo Culture Technology acronym NCT, a large boy idol group. They became popular worldwide with their metal-heavy electronic music and surreal and futuristic costumes. For example, in the music video, autotune synthesizes human voices. In visual effects, neon lights and robotic creatures are in the background. Also, several NCT music videos utilize cyberpunk-style colors to match the song’s vibe. It can be concluded that the company takes conceptual music to the extreme in NCT. Although these were not mainstream music back in 2016, and general comments from the viewers were: the songs were too noisy and difficult to sing along with, NCT still won a stable number of fans with its front-end music creation ability and avant-garde musical style. In this case, when the company has already launched two fairly popular groups, why risk launching AESPA with ae characters?

AESPA is a multilingual and multicultural girl group in which Giselle is Japanese-Korean and can speak both Japanese and English, Ningning comes from China, and the other two Korean members are Karina and Winter. Unlike NCT’s music video stacking various futuristic elements, AESPA creates a complete Kwangya worldview framework in their MV. This is relatively rare in Korean idol groups and the entertainment industry in Asia. Before releasing aespa’s first new song, SM Entertainment released SMCU’ first episode. This allows the group’s characteristics to change from songs serving idols to extensions from movies to music creations. Similar to a series of movies, the Kwangya worldview makes the audience more curious about what
will happen in the next music video, such as whether they successfully defeated the villain. Therefore, it can be said that the attempt at conceptual music in NCT has laid the foundation for the debut of AESPA, and it is also the beginning of further futuristic and innovative music concepts.

3. Analysis of Problems

3.1. The management and development of concept

As seen from Figure 1 and Figure 2, the concept is useful for South Korean idol groups to break through the idol industry. An idol group with a special and unique concept can be remembered and impressed by fans at once, and it can also stimulate fans’ secondary creative ability through the continuation of the concept. Take NCT127’s (second sub-unit of NCT) “2 baddies” as a typical example [9]. This song’s music video uses many artificial neon lights for shooting. In addition, fluorescent pigments are often used in the members’ costumes and props. For instance, in the opening scene from 0:16-0:18, each member’s clothes are embellished with fluorescent green colors. Specifically, the greenish color is highlighted in shoes, pants, cold hats, clothes, and gloves. In contrast, the background is purple. Therefore, the two complementary colors matching together provide a strong contrast in the dim background and give viewers a strong visual shock. In the 0:38-0:40 clip, member Jaehyun sits on a throne, holding a scepter and staring proudly at the camera, which implies the title of the song “baddies”. Baddies in the dictionary mean not only a bad guy but also someone bad “in a book or film [10].” From the throne’s color-matching perspective, it can be said that NCT 127 is showing respect to the Marvel character—Thanos. Moreover, there are spaceship-shaped transportation, cartoonish elevators, and racing cars in the MV. Pixel distortion, deformation, and night also appear often on screens. Overall, these elements are all point to the metaverse and cyberpunk concepts. The “2 baddies” MV fully demonstrated the concept of NCT 127, which is ‘culture technology’ born out of the marriage of cultural and technological innovation [11].”

It can be seen that SM Entertainment tried to emerge futuristic and surreal elements to the concept of NCT127, but this is just a taste of it. Since the overall concept of NCT is about the dream, metaverse and artificial intelligence are difficult to apply perfectly in NCT, which means that it would be better for SM Entertainment to provide a brand new concept team to serve AI characters. Hence, this is how Kwangya and AESPA were born.

3.2. Role position

Different from the overlapping role position in NCT’s 20 group members, each member in AESPA has an explicit role. Karina is a boxer who uses fists to fight against the villains. Winter is a weapon user, Ningning is a hacker, and Giselle is a multi-language user. AESPA’s first song, “Black Mamba” is SM Entertainment’s first attempt to invest in costly special effects production, such as the ae avatar, villain—black mamba, and the construction of Kwangya world [12]. Four members wear combat uniforms with courageous girl-crush expressions—especially the member Karina, who looks as delicate as her character. Everyone is highly compatible with the concept of Kwangya. Also, in terms of numbers, unlike NCT, which has 20 members, AESPA is the girl group with the fewest members in SM Entertainment today.

Similar to NCT, Red Velvet was also controversial because of its similar appearance and costumes when it debuted. Not only that, before the release of “Peek-A-Boo” in 2017, the concept of Red Velvet was mainly based on a unified vital and cute style. From the performance aspect, SM Entertainment is more inclined to build Red Velvet as a unified whole. For example, in Red Velvet’s debut song “happiness,” the four members were dyed the same brown hair color and wore similar costumes [13]. Therefore, the individual characteristics were greatly weakened, making Red Velvet encounter difficulties in accumulating popularity in the early stage. Until changing to an eerie style, Red Velvet raised its popularity again. Therefore, in comparison, AESPA’s role position and the grand Kwangya worldview make each member less substitutable. With only four members, AESPA can simplify the complex and unfamiliar metaverse worldview, making it easier for fans to understand. This is another reason SM Entertainment released the girl group AESPA.

In addition, compared with the concept of NCT, the setting of AESPA is more inclined to build a brand new worldview from the foundation. Ae avatars are generated from digital data uploaded by humans, and
Synk is the communication medium between ae characters and AESPA members. For the audiences, the virtual open world under the big frame makes the MV plot more attractive and vivid because this is a heated topic in the real world in recent years and the vision for the future. On the contrary, the concept of NCT prefers old-fashioned concept design. Even if the content of each mv is related, the complicated and lengthy dream connection makes the audience confused and not know where to start to understand, which also weakens the companionship and immersive experience for fans to some extent.

But it is undeniable that the NCT 127 sub-unit is the role model for AESPA since it allows SM Entertainment to see the feasibility of the concept of cyberpunk and metaverse. In terms of form, NCT and AESPA both have similarities in the MV visual effect, while AESPA made more digital virtualization on the basis of NEO style. The digital virtual world is no longer a fantasy nor a dream that exists only in the “future” as in the concept of NCT. Instead, the virtual world truly appeared in SMCU’s series with a real name called Kwangya. From the concept point of view, AESPA is a product born for Kwangya, rather than the concept serving the team. Hence, it can be said that AESPA is the inevitable result of SM Entertainment’s choice to expand the metaverse concept and the continued development of the lucid dream concept from NCT.

3.3. Profit making from secondary creation and cooperation

Chen and Wei proposed that secondary creation has played an important role in South Korea’s entertainment industry chain and, at the same time, promoted the development of the Hallyu industry [5].” Hence, NCT mainly relies on traditional secondary creations to advocate new cultural technology, promote music, and expand popularity, such as cover dance and mv reaction. For example, the song “Candy” launched by the sub-unit NCT Dream in 2022, has attracted many fans to sing and cover dance because of its simple and cheerful dance moves.

In contrast, since no Korean entertainment companies have tried to combine the metaverse concept of retro-futurism and AI characters, the concept of Kwangya is SM Entertainment’s patent. Kwangya is an advanced and innovative concept that makes AESPA’s commercial value not only limited to secondary creations but also can participate in cooperation with artists and game development, which can further promote the development of the fan economy. For example, in 2022, AESPA cooperated with Web3 artist Blake Kathryn to jointly launch a series of NFT collection works [14]. NFT refers to the digital collections that “let us tokenize things like art and collectibles such as images, audio, video, etc. The Ethereum blockchain, i.e., secure ownership of an asset, is the first time AESPA’s metaverse concepts are applied in the real world [15]”. In this activity, buyers can obtain their own AESPA digital collection through the auction. As the first Korean female idol group to cooperate with artists in the NFT digital collection, the digital virtual Kwangya framework has great potential. Moreover, SM Entertainment can generate a 1:1 scale Kwangya world for game development.

4. Suggestions

4.1. Suitability of concept

One month after the debut of AESPA, SM Entertainment launched the concept video about the culture of humanity at the end of 2020 [16]. In the video, most groups under SM Entertainment will join the Kwangya world, and it also includes idol groups that debuted in the early days, such as TVXQ, Super Junior, etc. As mentioned above, the concept of Kwangya is related to artificial intelligence and virtual reality, and both NCT and AESPA can fit into the concept. Even though Kwangya is a heated topic in the entertainment industry and pop culture, that doesn’t mean all teams should utilize Kwangya world view in their albums, Super Junior and Red Velvet are two typical examples.

Super Junior debuted as a large group in 2005 and became popular for their neat dance and excellent vocal performance. Especially the song “sorry, sorry” released in 2009, was especially well-known because of its representative hand movement. Moreover, new debut idol groups are performing “sorry, sorry” in music shows, such as SBS (Korea Pop Festival) and KBS Song Festival (Korean annual music festival). Until 2023, Super Junior is still active and releasing regular albums. As a large male idol group that debuted 18 years, Super Junior’s music performance style has gradually changed from a commanding dance style to a mature and cozy performance one. For Super Junior, the Kwangya worldview and virtual reality do not fit the image and concept of the group. If they want to join the SMCU world, Super Junior’s style needs to make many compromises and changes. Therefore, this is not necessarily beneficial to the development of Super Junior, and the decision for Super Junior to enter Kwangya is suggested to be taken seriously by SM Entertainment.

Second, regarding Red Velvet, even though they debuted relatively later in 2014, their concept is mainly divided into two parts, the early vitality and cute style and the court style with exotic and eerie elements. It can be said that the concept of Kwangya has not been applied in Red Velvet’s MV before. Not only that, Yeri, one of the members of red velvet, also said in a radio program that Kwangya is a contractual requirement for Red Velvet, and she does not know much about ae avatars and virtual worlds, which further shows that not all groups need to join the concept of Kwangya, especially red velvet [17]. The group characteristics will be weakened if the company insists on adding red velvet to the SMCU world. In addition, the uniqueness of AESPA will also be reduced by the participation of Red Velvet. As mentioned in 3.1, AESPA is the most suitable group for the Kwangya worldview. However, the combination of Red Velvet and Kwangya, who adheres to the eerie fairy tale style, will cause a sense of separation for the viewers. Therefore, it is recommended...
that the company more carefully determine the follow-up albums style of red velvet and Super Junior’s in order to avoid duplication and conflict with the concept of AESPA.

4.2. Providing clear role positions for idols or allocating recourse in balanced manner

From the analysis of 3.2, NCT has many advantages as a carrier for the concept of new technology cultures, such as its advanced music production capabilities, visually impactful MV production, and expressiveness of each member. However, compared with AESPA, NCT has too many members and is insufficient to allocate resources equally to each member. Therefore, due to the problem of unbalanced resource allocation, many members cannot perform to their ability completely. In addition, according to the recent decision released by the company in May 2023, two members of NCT will go to a new team and leave NCT [18]. It can be seen that an idol team with too many members is not conducive to the development of members. Moreover, members may also be attacked and influenced by public opinion because of the departure. For example, Jungwoo Kim, a member of the NCT 127 sub-unit, was attacked by bad public voices because he joined NCT 127 when NCT was under an expansion system in 2019. Therefore, it is suggested that the company give members different role positions when establishing a large group so that members can demonstrate their abilities and assign tasks relatively balanced. In addition, whether the limitless expansion system is suitable for the Korean entertainment industry still needs to be studied.

4.3. Targeted on AESPA–game collaboration and production

In the second half of 2021, AESPA collaborated with a South Korean online game development company Kakao Games, in a competitive survival game called Eternal Return. Also, AESPA released the “next level” special MV [19] with the eternal return game background. Specifically, Eternal Return is a video game. The game background is mainly modeled in 2.5D, while the game characters are drawn in 2D images. It can be seen that game companies have favored AESPA because of its ae avatar setting and the grand worldview of Kwangya and SMCU so that AESPA can have great development potential in the game industry. In general, it is recommended that AESPA tries different types of game cooperation and production in the future, such as making VR games with game characters in ae avatars or AESPA members’ images. Moreover, SM Entertainment can try to realize the Kwangya and SMCU worldview in game design. This will not only help expand the popularity of SMCU but also allow fans to learn more about Kwangya and experience the setting of the metaverse immersively.

In general, it can be said that AESPA has become the group that best fits the Kwangya worldview after NCT attempts to use metaverse and futuristic elements in the musical concept. Therefore, the concept of AESPA helps SM Entertainment sustainably develop the SMCU program. At the same time, since Kwangya and the ae avatar are the first attempts in the South Korean entertainment industry, this also makes AESPA more unique and has more potential for development. In addition, compared with Red Velvet and NCT, AESPA has clearer role positions and an easier-to-understand concept setting, which allows fans to join better the virtual reality world established by SM Entertainment. Furthermore, due to the close relationship between AESPA and artificial intelligence and metaverse, AESPA’s development has become more diversified, such as cooperating with game companies and releasing NFT collections. Therefore, for SM Entertainment, AESPA is beneficial for the company to extend the commercial value of Kwangya, and the popularity of AESPA also helps to promote the concept of metaverse and AI, which makes AI not only limited to scientific research and promotes people to discuss the impact of the virtual world on human beings.

Therefore, for the better development of SM Entertainment, it is recommended to choose the group that enters Kwangya more carefully to ensure that the team conforms to the setting of the SMCU world. This not only helps the company better manage each team but also allows each team to show its uniqueness. In addition, taking AESPA as an example, it can be seen that the independent role positions of each member can help idols better demonstrate their own advantages. Therefore, for the company’s development, it is suggested that the company avoid repetitive role positioning as much as possible when forming a large group so that each member can give full play to their abilities, thereby bringing more benefits to the company. Finally, for AESPA, due to the concept of the team, is well known in the online virtual world. Therefore, AESPA can participate in different corporations, such as VR games.

To conclude, this article analyzes the importance of AESPA for SM Entertainment and how it allows the company to try more innovative and creative ideas as to let Kwangya become a good try at the combination between virtual and reality. The uniqueness of Kwangya makes SM Entertainment play a more stable and important role in the Korean entertainment industry. However, there are still some limitations in this article. For example, the article lacks the use of primary data, and it mainly uses secondary data. Therefore, in the future, primary data such as fans’ opinions on Kwangya can be obtained through interviews.

References

1. X. Shen, SCMP, Ready Player One receives rave reviews in China, despite cultural differences, (2018, April 7)

3. Aespa, Aespa 에스파 'ep.1 Black Mamba’ - SM Culture Universe [Video], (2021, May 15)


7. SM Entertainment Group, SM Entertainment, Company introduction, (2023, March 31)

8. SMtown, Red Velvet 레드벨벳 ‘Psycho’ MV [Video], (2019, December 23)

9. SMtown, NCT 127 엔시티 127’ 질주 (2 Baddies)’ MV [Video], (2022, September 15)

10. Longman Dictionary of Contemporary English, idoceonline, Baddie


12. SMtown, Aespa 에스파 ‘Black Mamba’ MV [Video], (2020, November 17)

13. SMtown, Red Velvet 레드벨벳 ‘행복 (Happiness)’ MV [Video], (2014, August 3)

14. N. Lee, nftculture, AESPA x Blake Kathryn NFTs, (2022, October 1)


16. SMtown, SMtown LIVE “Culture Humanity” Line-up Teaser [Video], (2020, December 27)

17. E. Dawson, KpopStarz, ‘Maknae on Top’ Yeri Savagely Responds To Why Red Velvet Have To Go to ‘KWANGYA’, (2022, March 24)

18. P. Ziwei, NME, Sungchan and Shotaro leave NCT, to re-debut in “new boy group”, (2023, May 24)

19. R. Joan, KpopStarz, aespa Collaborates with Kakao Games for Upcoming MOBA Game’ Eternal Return’, (2021, July 14)