



Hitting the Right Notes: Exploring the Relationship between YouTube Music Videos and Digital User Engagement

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ABSTRACT

Purpose: This study meticulously explored the complexities of online fan engagement, placing a spotlight on the transformative influence of YouTube content produced by the renowned K-pop group, Aespa, and its subsequent impact on user interactions and the group's prevailing image.

Design/methodology/approach: Utilizing a robust text mining methodology, a comprehensive analysis was conducted on 11,039 comments extracted from a specific Aespa YouTube video. This analysis involved the extraction of frequently occurring words, the deployment of a semantic network analysis, and the strategic use of the Co-occurrence network analysis, which collectively provided a profound understanding of fan perceptions and sentiments.

Findings: Central to the findings was the revelation of Aespa's groundbreaking concept, which emerged as a cornerstone in captivating and retaining fan engagement. The data illuminated the depth of fans' interest in Aespa's narrative approach, with many expressing admiration for the group's commitment to delivering high-quality productions.

Research limitations/implications: Their unique blend of music, narrative, and visual aesthetics resonated deeply with the audience, fostering a sense of loyalty and admiration. However, it's imperative to note that the research's purview was limited, focusing solely on comments from one video. This limitation underscores the potential and need for more expansive datasets in subsequent studies, which could provide a more holistic view of fan engagement across multiple content pieces. Additionally, considering the dynamic nature of the K-pop industry and the rapid shifts in public sentiment, there's an evident need for continuous monitoring and analysis.

Originality/value: This investigation not only offers a renewed perspective on the role of digital influence within the vibrant world of K-pop but also accentuates the paramount importance of innovative and distinctive content in amplifying user engagement. It serves as a testament to the evolving landscape of digital influence in the entertainment sector, where content, creativity, and audience engagement intersect in profound ways.

Keywords: Aespa, Digital Influence, K-pop, Fan Engagement, Text Mining, Online Interaction

I. Introduction

A. Background

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Music industry marketing paradigms have been

impacted significantly by the digital landscape. One of the most notable shifts has been the rise of music videos. In Kotler et al. (2016), marketing strategies encompass conception, pricing, promotion, and distribution of various offerings to meet consumers' needs and desires. In order to achieve this, marketing strategies must be developed and consumer relationships nurtured.

Research by Schemer et al. (2008) and Wang et al. (2020) accentuates the pivotal role of music videos in marketing. Their findings underscore the escalating significance of visual content in seizing the audience's attention and catalyzing fan interactions. In today's digital epoch, platforms such as Twitter, Instagram, and YouTube have become quintessential for music promotion and fan engagement. Boujena et al. (2021) argues that fan interactions can be tangibly measured through metrics like comments, likes, and retweets on these platforms. Aespa's formidable presence and consistent performance on these platforms make them an intriguing subject for an in-depth exploration of contemporary music marketing dynamics.

From a strategic vantage point, this study promises to furnish invaluable insights that could guide the music industry in sculpting potent marketing and promotional blueprints for Southeast Asia. Based on Giertz et al. (2022), have spotlighted the instrumental role of social media in amplifying fan interactions and consolidating music branding. This is especially true given that fan interactions can sway music product acquisitions and digital consumption patterns, as indicated by (Giertz et al., 2022; Sandi & Triastuti, 2020).

To navigate this intricate terrain, it conduct the Fan Engagement Theory, which elucidates the manner in which fans engage with brands or artists within the music realm. As articulated by (Pradhan et al., 2020; Rodgers & Thorson, 2018), fan engagement encompasses the emotional and cognitive interactions between fans and artists or brands, manifesting in activities such as sharing, commenting, and recommending musical content. According to Nobre et al. (2019), delineates brand management as encompassing brand development, identity, and strategy, and this

concept will inform the examination of the management and promotion of the Aespa brand within the Southeast Asian music industry. Emerging from this rich tapestry of background information, this research is poised to unravel several pertinent queries: How does Aespa's music video modulate fan interactions in Southeast Asia, especially among YouTube aficionados? What sentiments do users harbor towards the Aespa music video? And crucially, what are the cardinal determinants influencing fan interactions with the Aespa music video in the Southeast Asian?

The selection of a female idol, particularly the Korean female idol group Aespa, as the focal point of this study was influenced by a confluence of factors. Historically, female idols have been at the nexus of global cultural trends, often setting the tone for broader industry shifts (An, 2022). Their unique blend of musicality, performance, and visual aesthetics offers a rich tapestry for understanding fan engagement and digital influence. Furthermore, the Korean Wave, or Hallyu, has propelled K-pop to unprecedented global prominence, with Korean female idol groups often being at the forefront of this phenomenon (Jin & Yi, 2020). Among these groups, Aespa stands out due to their innovative fusion of music, narrative storytelling, and visual appeal. Their rapid ascent to global stardom, coupled with a distinct digital engagement strategy, makes them a prime candidate for a study aimed at understanding the intricacies of online fan interactions.

In addressing the significance of YouTube content, especially of renowned K-pop groups, it's essential to decipher the underlying properties that resonate with the vast audience these videos attract (Burgess & Green, 2018; Kim et al., 2021). In this study, text mining analysis was used to identify the specific attributes or features of the content that evoke strong reactions, sentiments, and discussions among the audience. Comment analysis provides insights into the content elements that stood out, evoked emotions, or sparked discussion by directly contacting the engaged viewers (Nimesh et al., 2019).

It is extremely valuable to receive such direct feedback from the audience on YouTube, where the

content is vast and diverse. The visual and auditory appeal of K-pop videos is not the only factor contributing to their popularity; the narrative, themes, messages, and nuances also play an important role (Kim et al., 2021). The purpose of our text mining analysis is to unravel these layers, thereby shedding light on the true impact of the content on its digital audience.

II. Literature Review

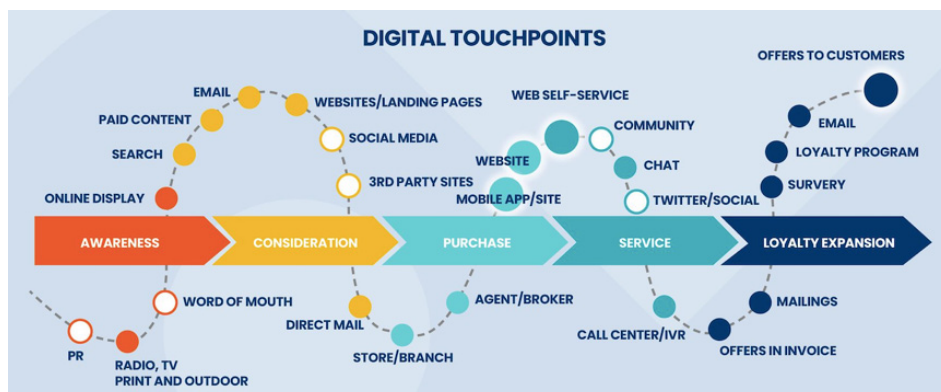
A. Music Videos as Entertainment Media

A music video is defined as a visual representation of a song, seamlessly blending imagery and song to narrate a story or express a message (Pandeya & Lee, 2021). With the digital renaissance, music videos have become an integral part of the entertainment industry. Advancements in technology, complemented by the rise of platforms like YouTube, Instagram, and TikTok, have democratized access to these videos. A report from IFPI (2021) reveals a staggering growth in the global music video audience, from 1.99 billion in 2015 to 3.81 billion in 2021. This growth can be exemplified by global phenomena like BTS, Ariana Grande, and the South Korean girl group, Aespa. Aespa, in particular, gained significant traction with

their innovative virtual avatar concept and the "Next Level" music video. Their journey elucidates the potential of music videos in reaching and engaging massive global audiences, a point supported by Taylor (2017) who emphasized the pivotal role of visual media in today's digitized music ecosystem.

B. Digital Consumer Engagement

Digital Consumer Engagement (DCE) encapsulates the myriad ways consumers engage with brands in a digital milieu, intensifying their commitment to the brand (Gavilanes et al., 2018). Gavilanes et al. (2018) were pioneers in defining this concept, which has since evolved. Contemporary studies have sculpted a model that delineates DCE on social networks as a continuum. This spectrum captures the evolution from rudimentary engagements, like merely consuming content, to intricate interactions like commenting, underscoring the depth and breadth of a consumer's brand relationship (Gavilanes et al., 2018; Swani & Labrecque, 2020; Yoon et al., 2018). Morgan-Thomas et al. (2020) emphasize the paramount importance of understanding these nuances to shape digital marketing strategies effectively.



Source: Customer Marketing Alliance

Figure 1. Digital consumer engagement touchpoints (DCE)

C. Music Videos and Their Influence on Marketing

Corporate behemoths like Big Hit Entertainment and Universal Music Group harness this potential, catapulting their artists into global stardom through meticulously crafted music videos. Icons like Taylor Swift and Ed Sheeran leverage music videos not just as promotional tools, but as storytelling mechanisms, fostering profound connections with fans. Marone & Rodriguez (2019) have empirically shown a direct and positive relationship between the calibre of music videos and favorable consumer perceptions towards the artist and their endorsements. Collins in "The Power of Music Video Marketing" (2016), postulated that the fusion of auditory and visual elements creates a potent brand resonance, driving consumer loyalty and advocacy (Van Reijmersdal et al., 2022).

D. Online Text Review

Online Text Review (OTR) refers to feedback given by consumers or users about a product or service via online media, such as websites or social media platforms. OTR has become an essential tool for companies to gain insights about customer opinions and preferences (Budiharseno et al., 2023; Chen et al., 2020; Handani et al., 2022). Several theories and studies, including communication theories like Media Effects Theory and Uses and Gratifications Theory, support the concept of OTR.

The Media Effects Theory posits that mass media can impact its audience positively or negatively at various levels, from changes in attitudes, values, to behaviors. In the context of this research, the Media Effects Theory is used to assess the impact of the Aespa music video on the level of social engagement in the form of comments and responses to the music video.

The Uses and Gratifications Theory proposes that the audience actively selects and uses media based on their needs and desires, gaining gratification or satisfaction from using such media. In the context

of this research, this theory is relevant in explaining why someone provides comments or responses to the Aespa music video.

OTR has been widely used in various fields, including tourism, hospitality, and health, to understand customer opinions and improve their services (Borghouts et al., 2021; Chen et al., 2020). Similarly, Tufekci (2014) and Park et al. (2021) found that social media platforms, such as Twitter and Facebook, have become vital channels for OTR, enabling users to express their opinions and experiences about various products and services.

III. Research Methodology

A. Data Collection

There has been a large amount of research devoted to the concept of influencers within the realm of influencer marketing, but there has been little exploration of the relationship between content and influence in the literature (Francalanci & Hussain, 2017).

This data was extracted using a custom web scraping tool that was developed and applied according to the methodology of web scraping for data extraction in order to extract this data. As a result of the use of this tool, approximately 12,869 comments have been collected spanning from the time the video was originally posted until June 2023, when the video was finally taken down. Due to this timeframe, it was able to acquire a broad spectrum of reactions and sentiments from a wide range of individuals, which allowed us to gain an understanding of the public's reactions and sentiments over time to Aespa music and concept.

Due to the dual nature of data contained in the comments section of YouTube, it has been deemed an extremely valuable source of information. In addition to providing text-based comments, it also offers people the possibility of weighing in with their likes and dislikes through a system of likes and dislikes that can be quantified. In order to gain a better

understanding of the public's opinion and reaction, it is essential to analyze this section in detail (X. Wang et al., 2020).

The data collected have been subjected to a rigorous data cleaning process in order to enhance the quality of the collected data. As part of this process, it was necessary to eliminate spam comments, comments that were less than five words long, and comments that were deemed irrelevant or unconstructive to the study's purpose. It is also important to note that comments that were inappropriate, lacked vital information, or consisted heavily of emojis were also discarded. As a result of this meticulous cleaning process, 11,039 comments were collected that were deemed significant and suitable to be analyzed as part of the ensuing analysis.

B. Data Analysis

A total of 12,869 reviews were gathered through data extraction in the first stage. Secondly, we refined the extracted data by selecting 80-100 of the most relevant and significant words. A frequency calculation was performed on each of these words to determine the most frequently used words, focusing on the top 100. Video titles and descriptions, as well as user comments, were used to analyze the public discourse surrounding the group as a whole. There was also a semantic network analysis conducted for the top-frequency words as part of the third phase. A selection

of these words was made based on their relevance to the topic of the study (Jang, 2022; Lee & Choi, 2015). In order to gain a better understanding of how customers perceive and understand Aespa music videos, this study was conducted a co-occurrence network analysis as a crucial component of this study.

In addition to semantic analysis, Co-occurrence network analysis was also conducted to helping identify patterns, themes, and trends in the discourse about the band, this study also provided insights into the sentiment of viewers and fans regarding the band (Jang, 2022). In the fourth stage, co-occurrence analysis of certain words was applied, providing alternative insights into what the users who provided online reviews liked or disliked in the product or service. As part of the fifth stage, word frequencies were calculated and the calculated words were categorized into a matrix in order to conduct a semantic network analysis. KH Coder was utilized in order to analyze network centrality and analyzed the results of a statistical analysis, the results were then used to illustrate the words that had the highest frequency, as explained in (Higuchi, 2016).

With the help of step-by-step approach, as depicted in Figure 2, this study seeks to offer a deeper insight into fan perspective by using a step-by-step approach. Moreover, researchers are able to use this data analysis method to assess whether there is a correlation between the keywords in a given research topic and their broader context within that topic.

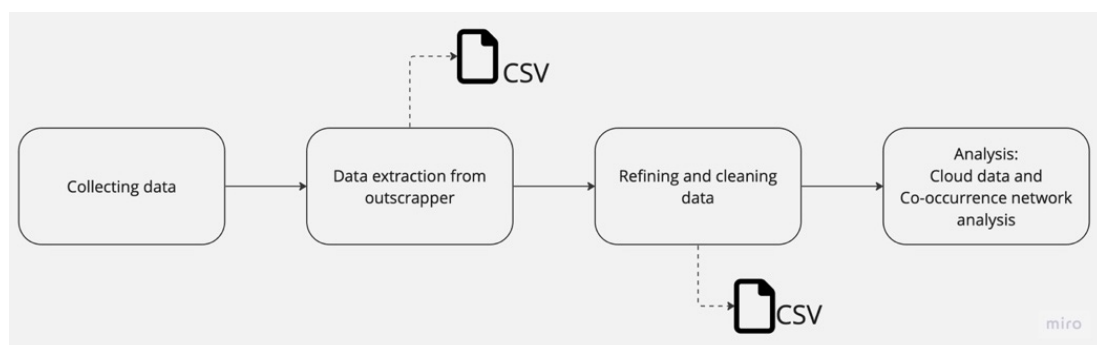


Figure 2. Research flows

IV. Result and Discussion

A. Frequency Word

In the first step, it has been conducted a frequency word analysis. The text mining analysis performed on 11,039 comments gathered from the Aespa video titled "*ep.3 Girls (Don't you know I'm a Savage?)*", ranging from its premiere until the end of June 2023, offered crucial insights into viewers' experiences and perspectives about the K-Pop group's musical and narrative output. The top 150 words that frequently appeared in the comment section, shown in Table 1, represent the terms commonly employed by the audience to describe their engagement with the music video, as identified through frequency analysis. By employing text software KH Coder, the study successfully extracted words that epitomize critical aspects of the viewers' perspectives from a comprehensive dataset of comments.

In the endeavor to understand viewers' sentiments and interpretations, the words 'good,' 'real,' and 'concept' surfaced prominently in our text mining results. It is essential to contextualize these words within the comments from which they were extracted to derive a more comprehensive understanding of their significance.

For instance, comments such as "It's a bit good, although it is a bit too, but it feels like watching movies" and "I like this concept, so I'm so good. I'm looking forward to the comeback in the future" indicate a positive reception of the video, suggesting that viewers appreciate its quality and the unique narrative or theme being portrayed. These sentiments echo an appreciation for the group's craftsmanship and attention to detail in their production.

Further, comments like "Karina is not awkward at all in real graphics and mixes well," "If you are one of the real artist supporters, you will know. This is Masterpiece," and "Their unique and modern concepts bring me back to the old high-tech vibe" emphasize authenticity and genuineness. The use of the word 'real' in this context reflects viewers' acknowledgment of the group's genuine talent and

artistry. This is opposed than mere digital enhancement or superficiality.

Lastly, remarks such as "Aespa's concept is really amazing" directly highlight the group's unique and innovative approach. In the world of K-pop, where concepts can set groups apart, such a comment underscores the group's distinct creative vision that resonates with viewers.

By delving into these comments, it employs bridge the gap between individual words and the broader sentiments they represent. This paints a clearer picture of viewer engagement and appreciation.

The prominence of words such as 'black,' 'girl,' 'movie,' 'amazing,' and 'villain' indicate viewers' engagement with the visual and narrative elements of Aespa's content. 'Black' could be related to the group's aesthetic or specific music videos, while 'girl' emphasizes the group's identity as a girl band. The frequent usage of 'movie,' 'amazing,' and 'villain' suggests that fans appreciate Aespa's cinematic music videos, which often contain storyline elements featuring good vs. evil dynamics.

Interestingly, words like 'game,' 'anime,' 'voice,' 'human,' and 'art' are also used frequently. This might suggest viewers' interest in the multifaceted nature of Aespa's work, which merges music, visual art, virtual reality, and narrative elements reminiscent of gaming and anime culture.

The variety of words, ranging from very specific 'naevi,' 'mamba' to broadly descriptive 'cool,' 'good', underscores the depth and breadth of engagement between Aespa and their audience. The use of these words indicates the viewers appreciation of both the individual elements - members, songs, visual elements - and the larger conceptual framework of Aespa.

In conclusion, the analysis of these frequency words offers valuable insights into what aspects of Aespa content resonate with viewers. Their positive adjectives and engagement with the group unique concept and narrative reflect a strong connection between the group and its audience, offering the group valuable guidance for future content creation and engagement strategies.

The dataset offers a glimpse into the salient terms

Table 1. Word frequency TF-IDF analysis

Words	TF	TF-IDF	Words	TF	TF-IDF	Words	TF	TF-IDF
cool	1024	3381.418	action	80	212.2257	oath	48	143.343
aespa	999	30.93787	sm	79	198.583	same	48	145.3859
boa	771	183.0669	thanks	79	199.6157	theory	48	144.3536
good	565	316.6287	awesome	76	193.042	person	47	142.357
world	473	372.1452	idol	73	191.5088	universe	46	141.3729
real	470	382.9942	word	73	192.5745	series	45	140.393
concept	463	380.6011	artist	72	196.5873	view	45	141.4774
next	368	369.9547	goosebump	72	186.8281	anime	44	137.2732
black	315	370.8626	omg	71	185.2403	child	44	142.8502
girl	309	376.7203	hacker	70	195.795	epic	44	135.2263
movie	297	357.8924	kpop	70	183.6385	film	44	136.2378
amazing	288	350.0948	much	70	182.6313	minute	44	138.3334
villain	275	352.4304	game	69	183.0447	different	43	133.1415
mamba	272	361.2391	first	66	177.0864	production	42	131.0335
best	254	351.8518	way	65	175.411	actress	41	130.952
end	225	330.3995	fan	64	179.0125	sense	41	128.9016
new	224	339.4003	many	64	181.2584	voice	41	134.2338
episode	222	333.206	music	64	183.5859	life	40	130.9598
member	218	343.1997	naevis	64	172.7124	unique	40	127.7581
time	208	338.2923	plot	64	172.7124	aespa	40	127.7581
naevi	195	318.1946	everyone	63	173.0383	human	39	128.7845
story	193	320.1903	one	63	173.0383	job	39	124.5641
group	181	317.0339	power	63	174.0797	money	39	126.6172
debut	172	295.1263	part	62	171.3165	comment	38	123.3707
crazy	160	293.3814	year	62	173.4184	kid	38	124.4118
more	151	287.1547	thing	61	167.5451	man	38	122.3573
season	141	282.7732	bad	59	168.1607	name	38	122.3573
fun	137	270.5336	worldview	59	166.0533	art	37	120.1241
great	137	275.8258	incredible	58	163.2388	day	36	118.878
scene	134	277.383	lot	58	162.2301	expression	36	120.9962
video	134	270.8451	city	57	164.5717	karina	36	120.9962
guy	121	252.5064	curious	56	162.7511	long	36	118.878
beautiful	116	258.9748	proud	56	159.6101	queen	36	118.878
staff	112	244.6847	wilderness	56	161.6844	cool	35	115.5758
animation	108	240.0608	team	55	158.7972	datum	35	115.5758
everything	104	236.3448	espa	54	155.91	little	35	117.6352
other	98	232.15	perfect	54	159.0565	nice	35	115.5758
people	98	228.9011	snake	54	171.1063	wait	35	115.5758
last	95	219.8508	ae	53	158.2746			
better	93	229.065	character	53	158.2746			
wow	93	222.4194	twist	53	153.0228			

Table 1. Continued

Words	TF	TF-IDF	Words	TF	TF-IDF	Words	TF	TF-IDF
love	92	215.8922	exciting	52	152.1358			
work	92	222.4194	lore	51	152.302			
quality	91	217.6361	something	51	150.22			
song	90	218.4028	storyline	51	153.3757			
ep	88	215.6699	whole	51	151.2504			
comeback	86	208.696	interesting	50	147.2746			
level	85	207.2872	such	50	151.4436			
masterpiece	83	204.4344	winter	50	149.3157			
hard	81	203.6104	fight	48	145.3859			

that dominate the reviews, with the term "cool" leading the list with a remarkable TF-IDF score. This term's prominence is indicative of the audience's perception of the content as trendy, stylish, or perhaps cutting-edge. Such a sentiment might highlight the content's contemporary appeal or its alignment with current popular culture.

The presence of terms like "real," "concept," "girl," and "world" within the top five further elucidates the multifaceted nature of the discussions. "Real" and "concept" might underscore discussions around authenticity, originality, and the unique thematic elements of the content. On the other hand, "girl" and "world" might be indicative of discussions centered around specific group members, their roles, or perhaps the global appeal and reach of the content.

B. Word Cloud

An examination of the top 50 of words cloud extracted from the comments of Aespa music video, offers significant insights into the audience's responses and sentiments as shown in Figure 3. The big picture of these words indicates strong associations with their interpretation and appreciation of the content provided by the K-pop group Aespa (Turki & Roy, 2022).

One of the highest frequency words, 'cool,' suggests a broad positive response from viewers, pointing to the effective use of visual and musical elements in the video. The word 'aespa' highlights the strong

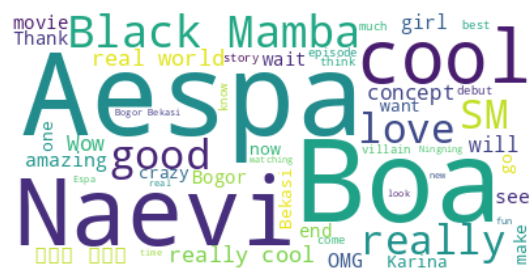


Figure 3. Word cloud analysis

branding and recognition Aespa has achieved, reflected in the audience's conversations. Words like 'good,' 'amazing,' 'great,' and 'best' affirm the positive reception of Aespa work. The recurrence of 'real' and 'concept' could be indicative of the audience's interest in the group's unique and innovative storytelling approach, often weaving a narrative across multiple songs and videos.

Finally, words like 'fun,' 'love,' and 'wow' embody emotional responses to the video, further emphasizing the overall positive reception. In summary, this analysis provides a snapshot of the viewers' engagement and their appreciation for various aspects of Aespa work, from their unique concept to high-quality production and the group members themselves. The strong positive sentiment and anticipation for more content highlight Aespa's successful establishment in the K-pop industry.

C. Co-occurrence Network Analysis

The co-occurrence network of words presents eight distinct clusters can be seen in Figure 4. Each cluster represents a subset of themes or topics that were prevalent within the comments on Aespa music video. The eight clusters provide a snapshot of the diverse and dynamic digital engagement of Aespa fans, demonstrating the multi-faceted ways in which they connect with the group's content. The clusters highlight the varied elements of the Aespa universe that resonate with fans, creating a vibrant and broad-based digital fan community.

Cluster I, embodying the narrative arc and universe of Aespa, indicates that fans are deeply engaged in the storytelling elements of the group's content. This engagement goes beyond passive consumption, evolving into active exploration and interpretation of the universe. In the digital space, such discussions foster deep connections, as fans exchange theories, decode hints, and share insights, creating a shared, participatory experience.

The positive sentiments evident in Clusters II and III highlight the power of digital platforms in amplifying appreciation and support for artists. The shared expressions of awe and admiration create a virtual space where fans can affirm their shared passion, fostering a sense of community. Meanwhile, the acknowledgement of the production team's efforts in Cluster IV represents another layer of digital engagement, providing fans a platform to appreciate the backstage heroes.

Clusters V, VI, and VII show fans' deep involvement with the action, plot, and characters in the Aespa universe. Fans engage with the content at a granular level, dissecting scenes, speculating on plot twists, and discussing the virtual avatars. This level of engagement speaks to the success of Aespa's innovative digital strategy, where the boundary between reality and the virtual world blurs, increasing fan immersion.

Lastly, the words in Cluster VIII echo fans' appreciation for the all-encompassing experience that Aespa provides. Fans laud the animation and overarching story, illustrating the power of innovative

digital content in creating comprehensive, immersive experiences that spark meaningful engagement. Such engagement transcends traditional artist-fan dynamics, fostering a participatory culture that enriches the fan experience, solidifying their bond with Aespa.

D. Word Association Analysis

There are several fascinating insights to be gained from the word association analysis of the word "concept," as spread out across eight clusters of word associations, especially focused on how Aespa's fans perceive and engage with the group's content can be seen in Figure 5.

In Cluster I alone, there is no doubt that the association of the word "concept" with the words "Aespa," "best," and "Kpop" immediately sticks out to one. The fact that the fans regard Aespa's unique concept as one of the best in the Kpop industry suggests that they value its uniqueness. It is clear from the fanbase's association with Aespa that they value and acknowledge the originality that Aespa brings to the table, which differentiates them among the vast landscape of Kpop, which makes them unique within the genre.

Taking a closer look at Cluster II, the association with the word "amazing" sounds like a strong endorsement for Aespa's concept. In its essence, it reflects the admiration and awe felt by the fans due to the creativity and uniqueness embodied in Aespa position.

Cluster III contains a wide range of words that suggest an engagement with Aespa multimedia narrative that is deep and lasting. The use of terms such as "episode", "next", "level," "world," and "real" are all a reference to fans active involvement in following their favorite story's development within Aespa's content. In addition, the use of such words as "movie" and "video" further confirms fans' appreciation for Aespa's cinematic quality, adding another layer to their engagement with the concept.

As Cluster IV associates the concept with the terms "4th generation" and "one", it may assume that this

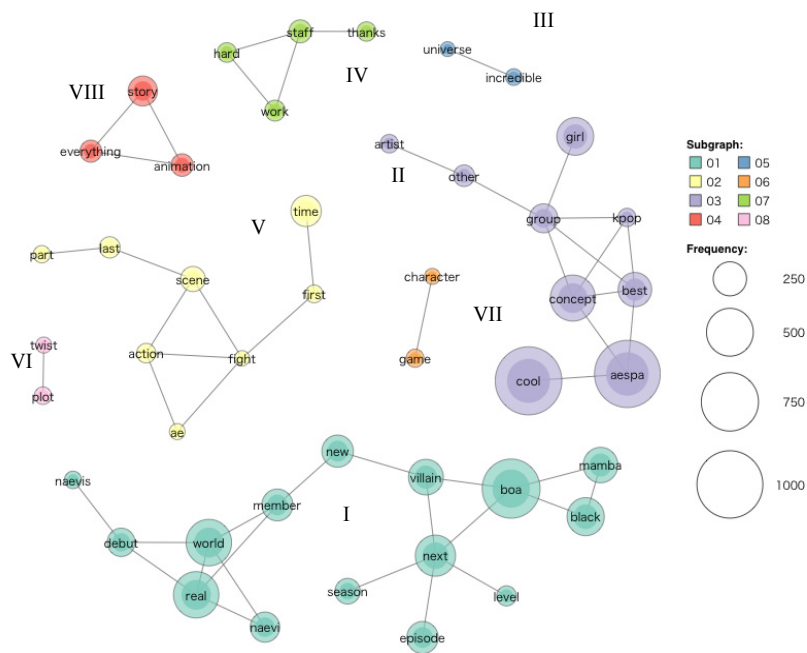


Figure 4. Co-occurrence network analysis

is a reflection of fans' perception that Aespa has been a pioneer of Kpop's fourth generation, offering a one-of-a-kind concept that sets them apart from their peers.

There is an association between "concept" and "group," "other," and "girl," which reinforces the idea that Aespa's unique concept is a key differentiator that sets them apart from other girl groups in the Kpop scene due to their unique concept. As a result, their appeal and intrigue in the eyes of the fans is further enhanced by this distinction.

This connection between the word "concept" and words in Cluster VI such as "member," "better," "music," "quality," "artist," "way," "company," "sm," "same," "everything," and "such" suggests a deeper appreciation of the integrative nature of Aespa concept. In this way, it creates a seamless experience that transcends what fans normally expect from Kpop, enveloping members, their music, and their management company in a way that is truly unique.

There are some words in Cluster VII and VIII that indicate that fans respect both the hard work

that went into implementing the concept (as symbolized by the words "staff," "thanks," "hard," and "exciting" in Cluster VII), and the creative execution of that concept through elements like "story," "work," "animation," "universe," "scene," "action," "game," "masterpiece," "everyone," and "idea" in Cluster VIII.

Fans of the group should be able to recognize, through the dashed lines connecting "story" in Cluster VIII, "member" in Cluster VI, and "debut" in Cluster III, how the concept has evolved from the group's debut, interweaving the individual narratives of the members into a larger, overarching narrative. This creates a sense of continuity and interconnectedness within Aespa's unique universe and, as a result, enhances the fans' immersion experience and reinforces the sense of continuity and interconnectedness within the universe. Supported by previous study like Go et al. (2020), it shows that this concept is not just a superficial aesthetic, but an innovative strategy that adds depth and dimension to the fans' experiences, fostering a more immersive and interactive fan culture.

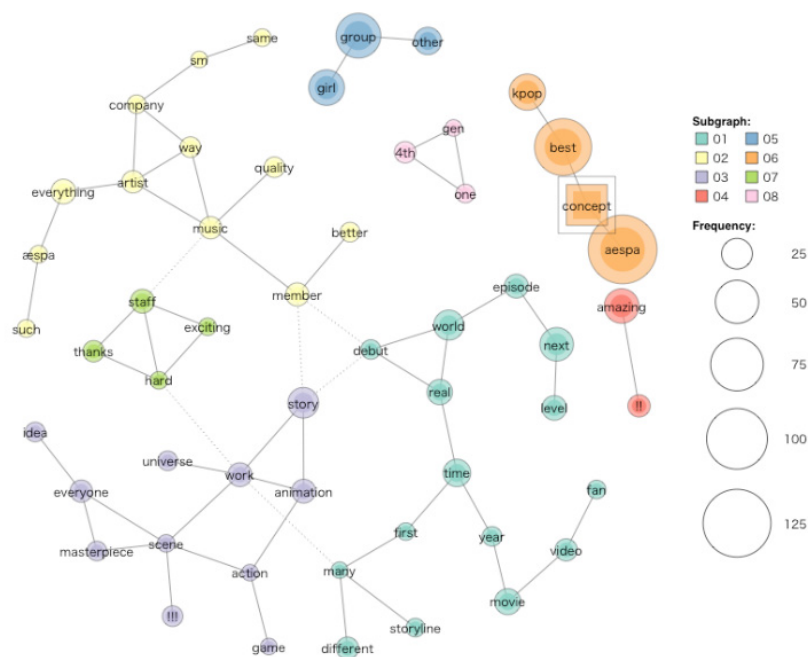


Figure 5. Co-occurrence network analysis by "Concept" word

V. Conclusion

This study has delved into the realm of digital influencers, specifically focusing on the impact of the YouTube content produced by the K-pop group, Aespa, on user engagement and their overall image. Applying an analytical approach to examine YouTube video reviews, this research offered profound insights into the dynamics of online fan engagement and the factors influencing users' perception towards Aespa.

A. Implications for Management

The findings from this study have important implications for management and the broader theory of digital influence. For management, the findings underscore the need for unique and engaging content to capture and retain the interest of a digital audience. In the case of Aespa, their innovative concept and narrative approach have clearly resonated with their

fanbase, leading to increased engagement levels. Thus, managers in the entertainment industry should strive for distinctiveness and innovation in their content strategies. Additionally, the acknowledgement of the fans' admiration for the hard work involved in content production highlights the importance of quality in fostering positive fan engagement. Therefore, investing in high-quality production and creative storytelling should be a priority for management. This in-depth analysis serves as a navigational beacon for industry leaders. It underscores the irreplaceable value of innovative storytelling, the potency of a unique narrative, and the imperatives of maintaining unparalleled quality. In the world defined by fleeting digital interactions, Aespa's saga accentuates the power of content that not just captivates but deeply resonates.

B. Theoretical Implications

In terms of theoretical implications, this study extends the understanding of digital influence and

online engagement within the context of Kpop. By focusing on a single digital influencer group, the study highlights the importance of unique and immersive content in driving user engagement. Moreover, it illustrates how text mining can be utilized to gain insights into fan perception and engagement, which can provide valuable feedback for content creators and managers. This endeavour contributes a nuanced layer to the broader discourse on digital fandom, especially within the K-pop domain. It emphasizes the merits of adopting a laser-focused approach, as exemplified by our deep dive into Aespa's universe, to glean richer insights on user engagement dynamics. Furthermore, the methodological rigor of this study offers a blueprint for scholars seeking to navigate similar domains.

In conclusion, this research has shed light on the dynamics of online fan engagement, specifically focusing on how the content produced by digital influencers, like Aespa, shapes user engagement and their overall image. Through the use of text mining and semantic network analysis, the study has illuminated the key factors driving user engagement, providing useful insights for both practitioners and scholars in the fields of digital influence and fan studies (Cho, 2021). Further research is encouraged to extend these findings and explore the impact of other influential factors on digital fan engagement.

C. Limitations and Further Research

This study, while offering a detailed exploration into online fan engagement and the profound influence of Aespa's YouTube content, possesses certain inherent limitations. Central among these is the focus on a singular Aespa YouTube video. Such a specific lens, though rich in its insights, might not encapsulate the entirety of audience reactions that span across different content releases or extended periods. The K-pop industry, renowned for its swift and dynamic evolution, experiences rapid shifts in musical trends and fan sentiments. Hence, the comments analyzed in this study could represent transient sentiments that

are subject to change with new music releases, external events, or broader industry trends.

References

- An, J. (2022). New directions in K-drama studies. *Journal of Japanese and Korean Cinema*, 14(2), 91-97. doi: 10.1080/17564905.2022.2120280
- Borghouts, J., Eikey, E., Mark, G., De Leon, C., Schueller, S. M., Schneider, M., ... Sorkin, D. H. (2021). Barriers to and facilitators of user engagement with digital mental health interventions: Systematic review. *Journal of Medical Internet Research*, 23(3). doi:10.2196/24387
- Boujena, O., Ulrich, I., Manthiou, A., & Godey, B. (2021). Customer engagement and performance in social media: A managerial perspective. *Electronic Markets*, 31, 965-987. doi:10.1007/s12525-020-00450-3
- Budiharseno, R. S., Kim, M. J., Cahyaningtyas, B. M. A. P., Putra, D. F. S., & Husein, F. (2023). Recovery Hotel Industry Luxury Hotels in Semarang: Big Data Analysis. In *Proceedings of the International Conference On Law, Economics, and Health (ICLEH 2022)* (pp. 143-149). doi:10.2991/978-2-38476-024-4
- Burgess, J., & Green, J. (2018). *YouTube: Online Video and Participatory Culture*. John Wiley & Sons. https://books.google.co.kr/books?hl=ko&lr=&id=mg1rDwAAQBAJ&oi=fnd&pg=PT5&dq=YouTube:+Online+video+and+participatory+culture.&ots=RCwOSze4sQ&sig=Jopmwo_EG P8P99y6FHha1YLQzU0&redir_esc=y#v=onepage&q=YouTube%3AOnlinevideoandparticipatoryculture.&f=false
- Chen, W., Xu, Z., Zheng, X., Yu, Q., & Luo, Y. (2020). Research on sentiment classification of online travel review text. *Applied Sciences (Switzerland)*, 10(15), 5275. doi: 10.3390/APP10155275
- Cho, Y. (2021). Awareness and resolution of touristification in korea using social media big data analytics. *Global Business and Finance Review*, 26(1), 68-78. doi:10.17549/gbfr.2021.26.1.68
- Francalanci, C., & Hussain, A. (2017). Influence-based Twitter browsing with NavigiTweet. *Information Systems*, 64, 119-131. doi:10.1016/j.is.2016.07.012
- Gavilanes, J. M., Flatten, T. C., & Brettel, M. (2018). Content Strategies for Digital Consumer Engagement in Social Networks: Why Advertising Is an Antecedent of Engagement. *Journal of Advertising*, 47(1), 4-23. doi:10.1080/00913367.2017.1405751
- Giertz, J. N., Weiger, W. H., Törhönen, M., & Hamari, J. (2022). Content versus community focus in live streaming services: how to drive engagement in synchronous social media. *Journal of Service Management*, 33(1), 33-58. doi: 10.1108/JOSM-12-2020-0439

- Go, E. J., Moon, J., & Kim, J. (2020). Analysis of the current and future of the artificial intelligence in financial industry with big data techniques. *Global Business and Finance Review*, 25(1), 102-117. doi:10.17549/gbfr.2020.25.1.102
- Handani, N. D., Williady, A., & Kim, H.-S. (2022). An Analysis of Customer Textual Reviews and Satisfaction at Luxury Hotels in Singapore 's Marina Bay Area (SG-Clean-Certified Hotels). *Sustainability*, 14(15), 9382.
- Higuchi, K. (2016). *KH Coder 3 reference manual*. Kioto (Japan): Ritsumeikan University.
- Jang, Y. J. (2022). Understanding Restaurant Customers' Environmental Behavior in the Social Media Context: An Application of Theory of Planned Behavior. *Global Business and Finance Review*, 27(2), 48-60. doi:10.17549/gbfr.2022.27.2.48
- Jin, D. Y., & Yi, H. (2020). Transnationality of Popular Culture in the Korean Wave. *Korea Journal*, 60(1), 5-16. doi:10.25024/kj.2020.60.1.5
- Kim, S., Hwang, S., & Kim, J. (2021). Factors influencing K-pop artists' success on V live online video platform. *Telecommunications Policy*, 45(3), 102090. doi:10.1016/j.telpol.2020.102090
- Kotler, P., Kertajaya, H., & Setiawan, I. (2016). *Marketing 4.0: Moving from traditional to digital*. John Wiley & Sons. <https://books.google.com/books?hl=en&lr=&id=e5yHDQAAQBAJ&oi=fnd&pg=PT8&dq=Marketing+4.0:+Moving+from+traditional+to+digital.&ots=A14iMTuQYY&sig=ERQpi0LZ52UxiCCCCy3hQfzTrTA>
- Lee, E., & Choi, Y. (2015). A study of the antecedents and the consequences of social network service addiction: A focus on organizational behaviors. *Global Business and Finance Review*, 20(2), 83-93. doi:10.17549/gbfr.2015.20.2.83
- Morgan-Thomas, A., Dessart, L., & Veloutsou, C. (2020). Digital ecosystem and consumer engagement: A socio-technical perspective. *Journal of Business Research*, 121, 713-723. doi:10.1016/j.jbusres.2020.03.042
- Nimesh, R., Veera Raghava, P., Prince Mary, S., & Bharathi, B. (2019). A Survey on Opinion Mining and Sentiment Analysis. In *IOP Conference Series: Materials Science and Engineering* (Vol. 590, Issue 1). doi:10.1088/1757-899X/590/1/012003
- Nobre, P., Bilro, R. G., & Correia Loureiro, S. M. (2019). The Influence of Cross-Cultural Effect on Kérastase (L'Oreal Group) Consumer-Brand Relationship and Engagement. *Global Fashion Management Conference, 2019*, 804-809. doi:10.15444/gfmc2019.08.02
- Pandeya, Y. R., & Lee, J. (2021). Deep learning-based late fusion of multimodal information for emotion classification of music video. *Multimedia Tools and Applications*, 80(2), 2887-2905. doi:10.1007/s11042-020-08836-3
- Park, K., Kwak, H., An, J., & Chawla, S. (2021). How-to Present News on Social Media: A Causal Analysis of Editing News Headlines for Boosting User Engagement. *Proceedings of the International AAAI Conference on Web and Social Media*, 15, 491-502. doi:10.1609/icwsm.v15i1.18078
- Pradhan, D., Malhotra, R., & Moharana, T. R. (2020). When fan engagement with sports club brands matters in sponsorship: Influence of fan-brand personality congruence. *Journal of Brand Management*, 27(1), 77-92. doi:10.1057/s41262-019-00169-3
- Rodgers, S., & Thorson, E. (2018). Special Issue Introduction: Digital Engagement with Advertising. *Journal of Advertising*, 47(1), 1-3. doi:10.1080/00913367.2017.1414003
- Schemer, C., Matthes, J., Wirth, W., & Textor, S. (2008). Does "Passing the Courvoisier" Always Pay Off? Positive and Negative Evaluative Conditioning Effects of Brand Placements in Music Videos. *Psychology & Marketing*, 25(10), 923-943. doi:10.1002/mar.20246
- Swani, K., & Labrecque, L. I. (2020). Like, Comment, or Share? Self-presentation vs. brand relationships as drivers of social media engagement choices. *Marketing Letters*, 31(2-3), 279-2298. doi:10.1007/s11002-020-09518-8
- Tufekci, Z. (2014). Big Questions for Social Media Big Data: Representativeness, Validity and Other Methodological Pitfalls. In *Proceedings of the Eighth International AAAI Conference on Weblogs and Social Media* (pp. 505-514). doi:10.1609/icwsm.v8i1.14517
- Turki, T., & Roy, S. S. (2022). Novel Hate Speech Detection Using Word Cloud Visualization and Ensemble Learning Coupled with Count Vectorizer. *Applied Sciences (Switzerland)*, 12(13), 6611. doi:10.3390/app12136611
- Van Reijmersdal, E. A., Oprea, S. J., & Cartwright, R. F. (2022). Brand in focus: Activating adolescents' persuasion knowledge using disclosures for embedded advertising in music videos. *Communications*, 47(1), 93-113. doi:10.1515/commun-2019-0168
- Wang, F., Xue, T., Wang, T., & Wu, B. (2020). The mechanism of tourism risk perception in severe epidemic-The antecedent effect of place image depicted in anti-epidemic music videos and the moderating effect of visiting history. *Sustainability (Switzerland)*, 12(13), 5454. doi:10.3390/su12135454
- Wang, X., Lee, S., & Park, S. W. (2020). The effect of entrepreneurial orientation, social network, and resource acquisition on firm performance in Chinese SMEs: The mediating effect of resource acquisition. *Global Business and Finance Review*, 25(3), 1-18. doi:10.17549/gbfr.2020.25.3.1
- Yoon, G., Li, C., Ji, Y., North, M., Hong, C., & Liu, J. (2018). Attracting Comments: Digital Engagement Metrics on Facebook and Financial Performance. *Journal of Advertising*, 47(1), 24-37. doi:10.1080/00913367.2017.1405753