

ANALYSIS OF COSMETICS PRODUCT MARKETING NETWORKS IN INDONESIA ON TIKTOK: A STUDY ON THE TOP 3 BRANDS OF PT PARAGON TECHNOLOGY AND INNOVATION

ANALISIS JARINGAN PEMASARAN PRODUK KOSMETIK INDONESIA DI MEDIA SOSIAL TIKTOK : STUDI PADA TOP 3 BRAND PT PARAGON TECHNOLOGY AN INNOVATION

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ABSTRAK

Sosial media TikTok saat ini telah menjadi platform utama dalam strategi pemasaran digital, khususnya untuk produk kecantikan yang menargetkan pasar muda dan aktif di media sosial. Keunggulan TikTok terletak pada kemampuannya menciptakan tren viral serta fitur algoritma yang secara aktif mendorong distribusi konten ke audiens yang lebih luas, sehingga menjadikannya wadah yang efektif untuk membangun keterlibatan antara brand, influencer, dan konsumen. Interaksi yang terjalin secara intens dan berulang antara ketiga aktor ini membentuk jaringan promosi yang tidak hanya saling terhubung, tetapi juga saling memengaruhi dalam membangun persepsi merek, menciptakan nilai simbolik produk, hingga mendorong keputusan pembelian. Dalam penelitian ini, metode analisis jaringan sosial media digunakan untuk mengeksplorasi aktor-aktor kunci dalam pemasaran di sosial media. Dengan pendekatan Social Network Analysis (SNA), penelitian ini mengidentifikasi struktur serta pola hubungan antar pengguna TikTok dalam konteks pemasaran produk kosmetik. Penelitian ini menganalisa jaringan pemasaran digital produk kosmetik Indonesia pada tiga produk unggulan PT Paragon Technology Innovation, yaitu Wardah, Make Over, dan Emina. Data dikumpulkan berdasarkan tingkat engagement, jumlah views, dan banyaknya komentar. Hasil penelitian menunjukkan peran dan pengaruh aktor utama, seperti influencer, brand, dan konsumen, dalam membentuk jaringan pemasaran digital. Penelitian ini menemukan bahwa peran mikro-influencer dengan degree tinggi cenderung lebih aktif dalam hubungan timbal balik dan kolaborasi dengan akun lain sehingga memberikan pengaruh promosi yang lebih kuat. Peneliti merekomendasikan studi mendatang memperluas objek kajian dengan membandingkan strategi pemasaran digital di berbagai platform sosial media untuk memperoleh gambaran yang lebih komprehensif mengenai efektivitas promosi lintas kanal.

Kata kunci: influencer, tiktok, jaringan pemasaran, kosmetik, social network analysis

ABSTRACT

TikTok has emerged as a primary platform in digital marketing strategies, particularly for beauty products targeting a young and socially active audience. Its strengths lie in the ability to generate viral trends and in its algorithm, which actively promotes content distribution to wider audiences. These features make TikTok an effective medium for fostering engagement among brands, influencers, and consumers. The frequent and intensive interactions among these actors form a promotional network that is not only interconnected but also mutually influential in shaping brand perception, creating symbolic value, and driving purchasing decisions. This study employs social network analysis to explore key actors involved in social media marketing. Using the Social Network Analysis (SNA) approach, the research identifies the structural patterns and relationship dynamics among TikTok users in the context of beauty product marketing. Specifically, the study analyses the digital marketing network of three leading cosmetic products from PT Paragon Technology and Innovation—Wardah, Make Over, and Emina. Data were collected based on engagement rates, number of views, and comment volume. The findings reveal the significant roles and influences of main actors—such as influencers, brands, and consumers—in shaping the digital marketing network. The study highlights that micro-influencers with a high degree of centrality tend to engage more actively in reciprocal interactions and collaborations with other accounts, thereby exerting a stronger promotional influence. It is recommended that future research broaden the scope by comparing digital marketing strategies across different social media platforms to gain a more comprehensive understanding of cross-platform promotional effectiveness.

Keywords: influencer, tiktok, network marketing, cosmetics, social network analysis

INTRODUCTION

The emergence of new skincare brands with a wider variety of choices makes this industry not free

from challenges, especially for business actors who want to maintain the skin care products sold. In an era of intense business competition, creativity and innovation have become crucial factors in

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differentiating oneself in the marketplace. The ever-evolving landscape of business requires continuous innovation, creativity, and resilience in product marketing (Heviawati *et al.*, 2025). The shift in Indonesian culture in shopping also affects how skincare products will be marketed. Initially, prospective buyers made conventional transactions, which required them to come to the store and see advertisements/promotions directly. However, online shopping transactions have changed; prospective buyers do not have to visit the store; they can only do so through their cellphones to see products and find out about ongoing promotions. On the other hand, prospective buyers can also find reviews from previous buyers or several influencers/KOLs collaborating with a brand. If skincare businesses continue to rely solely on conventional offline transactions, they face several significant risks, including reduced market reach, slower adaptability to shifting consumer behavior, and lower brand competitiveness. The absence of an online presence can hinder visibility, especially among younger consumers who rely heavily on digital platforms for product discovery and purchase decisions. Research by Setiowati *et al.* (2021) emphasizes that digital marketing adoption in the beauty industry is crucial for customer engagement and sales growth. Similarly, Nugroho and Lestari (2022) found that SMEs that fail to adopt e-commerce platforms tend to experience declining performance due to limited exposure and inefficient promotional strategies.

The involvement of influencers/KOLs with a brand can be a new opportunity or even a threat to beauty brands. This depends on how much influence the influencer/KOL has on their followers and how the influencer/KOL markets the beauty products. With the involvement of influencers/KOLs on social media, the brands and beauty products on the market will be more easily recognized; with social media, buyers can also comment on posts and encourage online discussions to occur. Social media is one of the most effective and efficient marketing channels to influence consumers, primarily through influencers/KOLs. One platform currently in the spotlight for marketers worldwide, including in Indonesia, is TikTok. With a growing population of active users, especially among the younger generation, TikTok is a potential channel to spread information about products, introduce brands, and interact directly with audiences. TikTok's uniqueness lies in its short video-based content format that allows for higher creativity and audience engagement compared to other platforms. Several recent studies have explored this phenomenon. For instance, Zhang and Sanderson (2023) highlight that influencer credibility and authenticity significantly affect purchase intentions on TikTok. Similarly, a study by Putri *et al.* (2022) found that beauty brands that collaborate with micro-influencers on TikTok experience higher engagement rates and brand recall

among Gen Z consumers. These findings suggest that strategic alignment between brand values and influencer personas is key to leveraging social media effectively in the beauty industry.

This phenomenon is also felt by Indonesia's beauty and skincare industry, especially by PT Paragon Technology and Innovation, a company that owns several well-known brands in the cosmetics and cosmetics market, such as Wardah, Emina, and Make Over. These three brands have used the TikTok platform to introduce their products to a broader market, relying on creative content, influencer campaigns, and direct interaction with followers. With more than 100 million active users in Indonesia, TikTok provides an excellent opportunity for brands to reach potential consumers more personally and attractively.

The rapid market growth forces sellers to understand how to market products effectively using social media. In addition to using attractive visual displays, the use of captions, hashtags, and words for Search Engine Optimization (SEO) also needs to be considered so that product marketing is by the targeted segmentation and to find out the relationship between each type of product circulating in the social media market. One method for analyzing the impact of the spread of influence on social media is Social Network Analysis (SNA). This method analyzes the structure of social networks on TikTok in depth based on big data, including identifying key actors who significantly influence the dissemination of information and promotion. Several studies have utilized SNA to explore marketing dynamics on social media platforms. For example, Nugroho and Fitriani (2023) conducted a Social Network Analysis of cosmetic product promotion on TikTok and found that central actors—often influencers or viral accounts—play a dominant role in shaping user interactions and boosting product visibility. Likewise, research by Lin and Chen (2022) emphasized that SNA can help brands detect community clusters and content pathways that are most effective in spreading marketing messages, thereby enabling more strategic targeting and engagement.

Based on research by Garcia, M. & Santos, E (2018) discussing the effectiveness of social media campaigns carried out by beauty brands. The main findings show that campaigns combined with influencer collaboration and interactive content significantly impact increasing sales and brand awareness. Brown and Lee (2020) used SNA analysis to evaluate how influencers in social media influence the spread of information and the formation of opinions among users related to skincare brands. The results show that influencers with high centrality in social networks significantly influence consumer loyalty and product purchases.

Based on research conducted by Kitajima *et al.* (2022), it was found that when comparing micro-influencers and mega-influencers, micro-influencers

are not always mega-influencers. This is determined by classifying networks into three groups: omnidirectional, centralized, and dual.

Hernandez and Gonzalez (2021) explored how user positions in social networks, such as centrality and betweenness, affect brand advocacy among the skincare community. The results showed that users in strategic positions in the network tend to be more effective brand advocates. Based on the previous research above, no one has specifically discussed the interconnected networks of skincare products on the market or marketed by influencers/KOLs, especially micro-influencers and mega-influencers on TikTok social media.

Using the Social Network Analysis (SNA) approach, this article provides in-depth insights into the structure of social networks on TikTok, including identifying key actors who have significant influence in the dissemination of information and promotion. This approach allows for a more detailed analysis of how micro-influencers and mega-influencers contribute to the effectiveness of marketing strategies. Micro-influencers, with closer and more authentic relationships with their audiences, can often generate higher engagement levels, while mega-influencers offer advantages in terms of broad reach.

By understanding the dynamics of the marketing network that occurs on TikTok, this article hopes to contribute to the development of more effective digital marketing strategies, especially for cosmetic brands in Indonesia that want to use TikTok as a tool to increase the visibility and sales of their products. Furthermore, this article will also provide an overview of how social interactions in cyberspace can influence consumer decisions in choosing and purchasing cosmetic products.

RESEARCH AND METHODS

Social Network Analysis (SNA) is a quantitative approach used to analyze the structure of relationships and social interactions within a network (Tabassum *et al.*, 2019). In the context of social media platforms such as TikTok, SNA enables researchers to understand how information about cosmetic products spreads, identify key actors in the process, and examine how user connectivity influences marketing strategies and consumer decision-making (Kadriu and Troja, 2021).

In this study, SNA is employed to map and analyze the promotional networks of the top three brands of PT Paragon Technology and Innovation on TikTok. This method involves collecting big data from the TikTok platform, including the number of comments, likes, shares, and tagged or mentioned accounts associated with the brands. SNA then identifies nodes (actors such as influencers, brand accounts, and users) and edges (the interactions or relationships between those accounts), followed by the calculation of several key metrics, such as:

- Degree Centrality: measures how many connections an account has. Accounts with a high degree are often key actors who are widely connected.
- Betweenness Centrality: identifies actors who serve as bridges between different communities in the network, thus playing a crucial role in information dissemination.
- Closeness Centrality: evaluates how quickly an account can access information throughout the network (Freeman, 1979).

Through this method, researchers can identify the most influential Key Opinion Leaders (KOLs) who contribute significantly to strengthening the TikTok marketing strategies of Paragon's leading cosmetic brands such as Wardah, Emina, and Make Over (Aisyah and Prabowo, 2022).

This study uses a quantitative approach with the social network analysis (SNA) method to analyze the marketing of Indonesian cosmetic products through the TikTok platform. The focus of this study is on the top three brands of PT Paragon Technology and Innovation, namely:

- Wardah Beauty Official (@wardahofficial) 1.4 million followers
- MakeOverID (@makeoverid) 832.7 thousand followers
- Emina Store (@eminacosmeticsid) 807.5 thousand followers

The three brands were chosen as research objects because of their dominance in the cosmetic product market in Indonesia. The data used in this study are secondary data obtained from TikTok interactions from August 2022 to August 2024. The analysis includes comments on the marketing content of the three brands on TikTok's social media accounts. The objects of this study are the social media brands Wardah, Makeover, and Emina. The population of this study includes user-generated content (UGC), brand content, and comments from TikTok users involved in interactions related to the top-of-mind brands, especially their role as influencers.

Data was collected using scraping tools or TikTok APIs to extract interaction information on relevant content, which was filtered only to include prominent cosmetic marketing campaigns and influencers working with the brand. The collected data was then processed into a social network representation, with each account (brand, influencer, or user) as a node and interactions between accounts as edges connecting the nodes. Degree calculations were carried out to identify the number of connections or interactions each node in the network has to see which accounts have the most significant influence in marketing cosmetic products. The results of the degree analysis will reveal the 10 nodes with the highest degree, which indicate the accounts or brands with the most significant influence in the TikTok marketing network. To visualize the pattern of

relationships and distribution of influence, network analysis is also equipped with visualizations that map the interactions between these accounts. Data validity is maintained by verifying the scraping results with data available on the TikTok Analytics platform and using the Octoparse application.

In contrast, the reliability of data processing is guaranteed using Gephi software. This study is limited to marketing cosmetic products on TikTok. It does not cover other social media or offline marketing, providing a more focused picture of the impact of TikTok on the digital marketing strategy of cosmetic brands in Indonesia. The subject of this data collection is user-generated content (UGC) involved in interactions with the Wardah, Make Over, and Emina brands, which are included in the top 10 content with the highest engagement rates in the last two years. Data is taken through the TikTok search engine related to UGC created by micro-influencers and mega-influencers. The data collection process is carried out by utilizing supporting tools, where the text code available in the Octoparse application is used to crawl TikTok content.

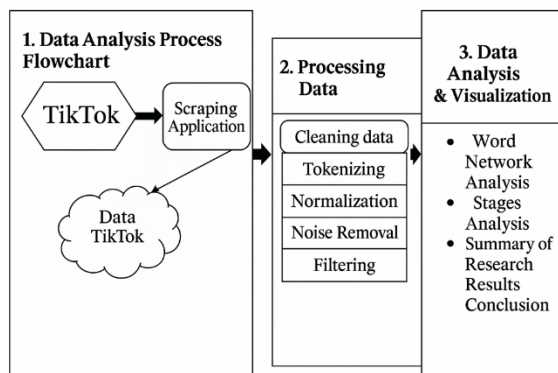


Figure 1. Research process design

The Social Network Analysis (SNA) method was applied to analyze the network structure and identify topic groups. In the final stage, network visualization was carried out using Gephi to facilitate understanding of the structure and groups formed. By calculating network property values, this study can identify influencers with the greatest influence on interaction patterns on TikTok. This analysis helps plan digital marketing strategies through the use of influencers.

This study processes data from the TikTok social media platform through significant data crawling. The process begins by collecting data from the most popular user-generated content and sorting the highest level of engagement. This study collected data by searching for content related to a particular brand using the brand name keyword. The selected content was the most popular and had the highest engagement rate in the last two years. After the data was collected, the content was sorted by engagement rate, with the content with the highest engagement

showing the most extensive network on the internet through significant interaction from users.

This study collected content data and conducted an in-depth analysis of the comments on the content. Comments given by users indicate that the content has succeeded in attracting attention and triggering two-way communication. This interaction process shows that content can create conversations in the digital public space. These comments allow for further discussion between users, making content a source of information and a trigger for dialogue on social platforms. Thus, this study aims to understand how content with high engagement rates can trigger interactions and form dynamic digital conversation spaces.

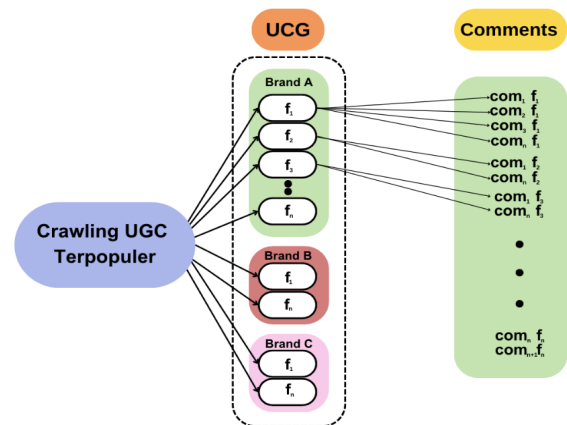


Figure 2. Process crawling data

RESULTS AND DISCUSSION

Based on the results of social network analysis (SNA) research on three Top Brands from PT Paragon Technology and Innovation, the following database was obtained as the basis for crawling data acquisition through the Octoparse scrapping application.

Make Over

Based on the crawling results, the influencers who succeeded in producing content with the highest degree level were as Table 1.

Table 1. Result micro/macro influence make over

Tiktoker	Followers	Degree
Veve	1.1 M	520
makeoverid	856.3 K	470
vitabelina	20.4 K	417
Egha Makeup	1.8 M	387
Adi Rustana	228.2 K	348
Clarice	1.2 M	146

As shown in Table 1, there is a notable disparity between follower count and degree centrality among various TikTok influencers promoting the Make Over brand. While some macro-

influencers such as Veve (1.1M followers) and Egha Makeup (1.8M followers) demonstrate high levels of interaction with degrees of 520 and 387 respectively, other macro-accounts like Clarice (1.2M followers) and tisalsh (184K followers) show significantly lower degrees of 146 and 111. This suggests that a large follower base does not necessarily correspond to high network engagement.

In contrast, micro-influencers like Vitabelina, with only 20.4K followers, exhibit a relatively high degree of 417, indicating a strong level of two-way interaction with audiences. Similarly, Adi Rustana (228.2K followers, degree 348) and makeoverid (856.3K followers, degree 470) also show effective engagement, reinforcing the idea that micro- or mid-tier influencers can sometimes outperform larger accounts in terms of active involvement within their social networks. These findings align with recent literature on influencer marketing, which highlights that engagement metrics such as degree centrality may serve as more meaningful indicators of influence than follower count alone (Lou and Yuan, 2019; Borgatti *et al.*, 2018).

These results indicate that nodes such as "Veve", "makeoverid", and "vitabelina" have important roles in the network because they have high connectivity. Further analysis can be done to understand the nature of their connectivity.

From the results of the SNA Macro/Micro Influencer Make Over, the highest degree (520) is Veve as the center of connectivity in the network (see Figure 3.). This shows that this account is active and maybe the main communication or information flow link. Most likely, Veve is an entity widely contacted or mentioned by other users. Furthermore, the next highest degree produced on the official makeoverid account shows that this account is one of the most

central nodes in the network. As an account with a beauty focus, makeoverid may act as an influencer or primary source of information, impacting social networks that discuss related topics. The high degree of the 3rd position on vitabelina indicates that this account also has a central role. Vitabelina may have extensive connections among users, placing her as an essential figure in the network to share information or influence opinions. Egha Makeup is an account that plays a significant role in this community, especially in beauty. This high degree shows that the account connects with many other nodes, indicating high popularity or trust. A significant degree of Adi Rustana suggests that this account has a vast network. As an active and influential node, Adi Rustana is likely to be involved in many interactions and can act as a connector between communities in the network. Clarice has fewer connections than the first five accounts but is still relatively high. This suggests that Clarice may be a reasonably popular or influential member, although not the center of the network. This account may be necessary in specific sub-communities. Tisalsh's degree places her as an active but less connected than other top accounts. Tisalsh may interact in smaller groups or only with a select number of nodes, indicating a more limited influence in the network as a whole.

Based on the Social Network Analysis (SNA) framework described by Tabassum, Pereira, and Fernandes (2019), social network analysis assesses the influence of an account not only by the number of followers but also by measuring the intensity and structure of interactions within the network. The degree of centrality, which reflects the number of direct connections a person has in a network, is an important indicator for assessing a creator's engagement.

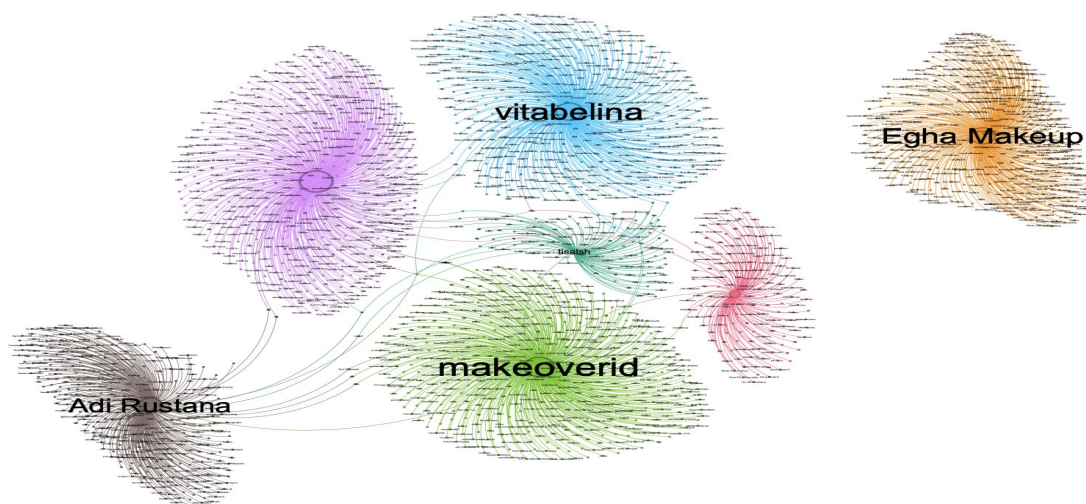


Figure 3. Result SNA micro/macro influence make over

Based on the results of the SNA analysis, creators such as Veve 🌹, with 1.1 million followers and a degree of 520, show an ideal combination of popularity and engagement. This indicates that the creator has a large audience and is actively building two-way communication with his followers, an important element in creating audience loyalty.

In contrast, Clarice 💖, who has 1.2 million followers but a low degree of 146, shows a more limited interaction pattern. In line with the findings of De Veirman, Cauberghe, and Hudders (2017), a high number of followers does not always correlate with high levels of engagement, mainly if the creator produces more one-way content without building active interactions. Meanwhile, Vitabelina, with only 20.4 thousand followers but a high degree (417), shows micro-influencers power in building a small but highly engaged community. A study by Freberg *et al.* (2011) strengthens this finding by showing that micro-influencers are often perceived as more authentic and closer to their audience, thus creating a closer relationship than macro-influencers.

In digital marketing, macro-influencers such as Egha Makeup (1.8 million followers, 387 degrees) have the advantage of broad reach, although the resulting level of interaction tends to be lower. Booth and Matic (2011) suggest that combining macro- and micro-influencers is an effective strategy to balance broad audience reach and high levels of interaction. This strategy can be implemented by brands such as Make Over using Veve 🌹 to build brand awareness on a broader audience. At the same time, Vitabelina can increase engagement in a more focused community.

In addition, the Personal Influence theory by Katz and Lazarsfeld (1955) highlights the importance of two-way communication in building effective influence. Influencers who engage in collaboration or discussion with the community, such as Vitabelina, often have a higher degree due to the intensity of the interactions they build. Conversely, creators who focus on spreading one-way content, such as Clarice 💖, may have lower engagement despite having a large follower base. Therefore, in choosing influencers for marketing campaigns, marketers need to consider the number of followers and the level of engagement represented by the degree in the social network. A strategy combining the advantages of macro- and micro-influencers allows companies to balance broad exposure and close relationships with the audience, which can ultimately increase the effectiveness of the campaign as a whole.

Emina

Based on the crawling results, the most popular Emina influencers or creators who have succeeded in producing content with the highest degree levels are presented in Table 2. As shown in Table 2, the relationship between follower count and degree centrality among TikTok influencers reveals

significant contrasts in engagement strategies. Tutinnitut, with only 10.8K followers, exhibits a remarkably high degree centrality of 507, indicating intense two-way interaction and community engagement. Similarly, Beauthings.ay, a micro-influencer with merely 1,746 followers, also shows strong audience involvement with a degree of 333. These figures demonstrate the potential of micro-influencers to foster meaningful and reciprocal relationships despite having a small audience size.

Table 2. Result micro/macro influence Emina

Tiktoker	Followers	Degree
Tutinnitut	10.8 K	507
Beauthings.ay	1746	333
AN NA	970.8 K	254
Ran_	195	176
Emina Store	821.7 K	166
Afiifa	445	130

Conversely, macro-influencers such as AN NA and Emina Store, with 970.8K and 821.7K followers respectively, show much lower degrees of 254 and 166. This suggests a more broadcast-oriented approach with limited reciprocal communication, aligning with one-way communication patterns typical of large-scale influencer accounts.

Interestingly, even accounts with minimal followers like Ran_ (195 followers, degree 176) and Afiifa (445 followers, degree 130) exhibit relatively high degree centrality, further supporting the argument that audience size alone is not a reliable measure of engagement or influence. Rather, degree centrality offers a clearer picture of how influencers participate in social networks and foster trust and conversation with their audience.

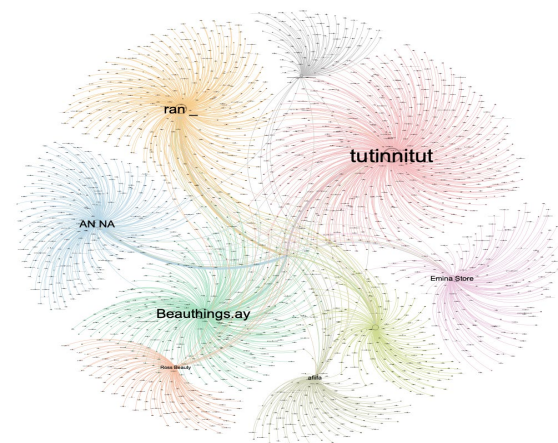


Figure 4. Result SNA micro/macro influence Emina

Based on the SNA results from influencer Emina, it was shown that Tutinnitut, with a degree of 507, has the highest degree in her community (see Figure 4.). This indicates that this account has many connections with other nodes in the network. This

account may function as the main hub in the network, connecting various parts of the network. With a high degree like this, Tutinnit plays a crucial role in spreading information and social influence in the network.

Next, followed by Beauthings.ay (Degree 333) and Ran_ (Degree 333) also have high degrees, indicating that both play a significant role in connecting various parts of the network. Although their degrees are slightly lower than Tutinnit's, they are still important links that facilitate communication and interaction between many nodes in the network.

AN NA (Degree 254) has a lower degree than Tutinnit, Beauthings.ay, and Ran_, but it is still connected to quite a few nodes. This account can function as an additional link in the network, helping maintain stability and connect several sub-communities or groups.

Emina Store (Degree 166) has a lower degree than the above nodes but still plays a role in spreading information within a specific subgroup or community within the network. Although they may not be connected to as many accounts, they are still important in the network because they connect smaller, more focused groups.

Afiifa (Degree 130) has a much lower degree than the other nodes, indicating they have more limited connections within the network. These nodes may focus more on a niche community or smaller group within the network. While their role is more limited in terms of overall information dissemination, they still serve to maintain diversity and connect smaller parts of the network.

High-degree nodes such as Tutinnit, Beauthings. ay, and Ran_ are very important in spreading information in this network. Information that starts from these nodes can spread quickly because they are connected to many other nodes. Tutinnit, as the node with the highest degree, is likely to be the primary carrier of information in this network. When Tutinnit shares information or content, it can quickly spread to many other parts of the network due to her large number of direct connections.

Bea things.ay and Ran_, with high degrees but slightly lower than Tutinnit, are also significantly able to spread information. They may serve as a bridge between different sub-communities in the network, ensuring that information continues to flow between isolated parts.

In modern digital marketing, social network analysis (SNA) is a crucial tool for understanding interaction dynamics on social media platforms. According to Borgatti et al. (2018), one of the key indicators in SNA is **degree centrality**, which reflects an individual's level of involvement or interaction in the network. For instance, although *Tutinnit* only has 10.8K followers, a high degree of 507 indicates strong engagement with the audience through direct interactions such as comments, mentions, and

collaborations. In contrast, *AN NA*, with 970.8K followers, shows a much lower degree of 254, suggesting that its activities focus more on one-way content distribution rather than fostering reciprocal interaction. This observation aligns with the findings of Lou and Yuan (2019), who argue that **micro-influencers** tend to be perceived as more authentic and trustworthy compared to macro-influencers. The high engagement rate of micro-influencers like *Tutinnit* and *Bea things.ay* (1.7K followers, degree 333) makes them particularly effective in reaching niche audiences or tightly-knit communities. With stronger personal connections and trust, their audiences are more likely to respond positively to product recommendations, making them ideal for campaigns that require deeper interpersonal engagement.

On the other hand, macro-influencers such as AN NA and Emina Store (821.7K followers, degree 166) offer the advantage of broader reach, according to the findings of De Veirman, Cauberghe, and Hudders (2017). Although the engagement rate generated is lower, their ability to spread messages to a large audience effectively increases brand awareness massively. However, in practice, a combination of strategies between macro-influencers and micro-influencers is considered more optimal, as stated by Booth and Matic (2011), who emphasize the importance of mapping and utilizing the influence of various influencers to shape brand perception.

In addition, the theory of personal influence proposed by Katz and Lazarsfeld (1955) shows that two-way interactions play an important role in strengthening social influence. Micro-influencers with more personal interactions can create closer relationships with their followers to make the messages delivered more effective. Therefore, a marketing strategy that combines the broad reach of macro-influencers such as AN NA with the high engagement of micro-influencers such as Tutinnit and Bea things. ay, can create a powerful synergy. This approach allows brands to reach audiences on a large scale while building meaningful interactions in smaller communities, making marketing campaigns more effective and impactful.

Wardah

The following is a social network analysis (SNA) of macro/micro influencer content on social media TikTok with Wardah content with a focus on the degree of each node, as well as its role in the dissemination of information, network structure, and overall network stability.

As shown in Table 3, there is a significant variation in degree centrality among TikTok influencers regardless of their follower count. Tharysahardiyani stands out with an exceptionally high degree of 1981, despite having a moderate follower base of 289.2K. This indicates intensive engagement and a strong presence in interactive

conversations within her network. Similarly, Blackxugar (40.2K followers) and Valle (79K followers) record high degrees of 888 and 568 respectively, reinforcing the trend that micro- and mid-tier influencers can maintain meaningful and frequent interactions.

Table 3. Result micro/macro influence Wardah

Tiktoker	Followers	Degree
Tharysahardiyani	289.2 K	1981
Blackxugar	40.2 K	888
Valle	79 K	568
Tasya Farasya	4 M	380
Itsandani	2.2 M	340
Jihan Fadiyah	4.9 K	327
Istriceo__	4.7 K	257
Silvianiani	1.4 M	195
Yaya	163.2 K	133

On the other hand, macro-influencers such as Tasya Farasya (4M followers) and Itsandani (2.2M followers) show comparatively lower degrees of 380 and 340. This supports the argument that larger audiences often correlate with lower levels of reciprocal communication, possibly due to content being primarily one-directional.

Notably, even influencers with very small followings—such as Jihan Fadiyah (4.9K, degree 327) and Istriceo__ (4.7K, degree 257)—demonstrate high centrality, suggesting strong interaction with niche communities. In contrast, Silvianiani (1.4M followers) and Yaya (163.2K followers) show low degrees of 195 and 133, again highlighting that follower count alone is not an accurate measure of engagement or influence. These findings further

support the strategic value of collaborating with micro-influencers in campaigns focused on authentic interaction and trust building.

Tharysahardiyani has the highest degree (degree 1981), indicating that she is a major central node in the network (see Figure 5.). With connections this large, Tharysahardiyani is likely a central point of communication and plays a role as a major hub in the spread of information or influence in the network. Losing this node would have a major impact on the network as many connections would be lost.

Blackxugar (Degree 888) is second as the main link in the network. With a degree almost half that of Tharysahardiyani, this node remains a significant link between various parts of the network, especially in maintaining the flow of information. In third place is Valle (Degree 568). Although lower than Blackxugar, Valle still has an important role as an additional central node in the network. It helps distribute information to smaller nodes. Tasya Farasya (Degree 380), Itsandani (Degree 340), and Jihan Fadiyah (Degree 327) are Nodes with medium degrees. These may function as additional links in the network, distributing information from large nodes to smaller sub-communities. They may not be as important as the three nodes above, but they still have a vital role in spreading more local information.

Meanwhile, Istriceo__ (Degree 257), Silvianiani (Degree 195), and Yaya (Degree 133) These nodes are smaller, with fewer connections, indicating that they may be more focused on specific communities or certain sub-groups within the network. Although their influence is negligible globally, they are still crucial for maintaining local diversity and connectivity within the network.

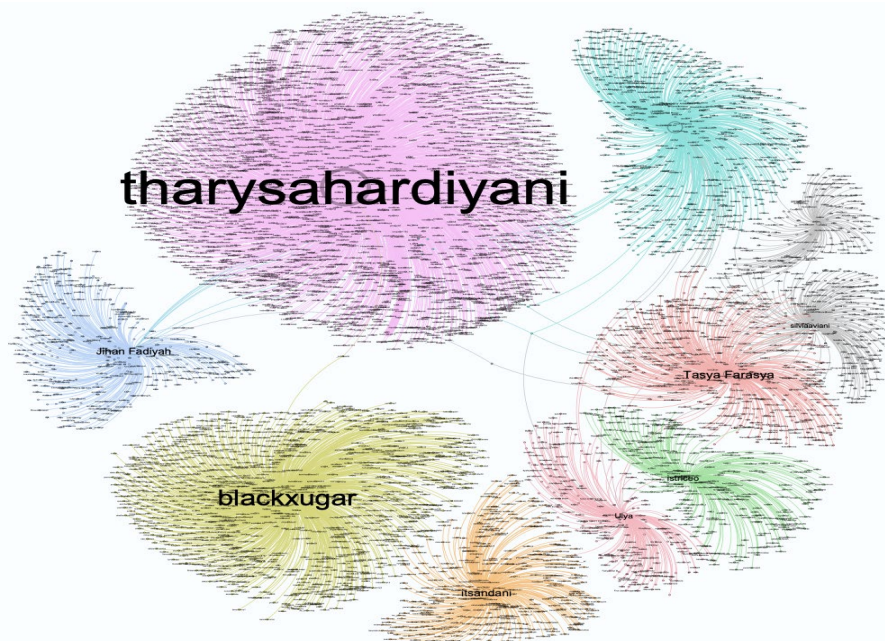


Figure 5. Result SNA micro/macro influence wardah

Tharysahardiyani has 289.2K followers but a very high degree (1981). This shows that this creator is very active in interacting with many other accounts, such as replying to comments, collaborating, or mentioning other accounts in their content. A high degree indicates active direct interaction within the TikTok community. In contrast, Tasya Farasya has 4M followers but a degree of only 380. This shows that although Tasya has many followers, her direct interactions (comments, collaborations, or two-way communication) with other accounts are relatively few. This is common for prominent creators who focus more on distributing content one-way to a large audience.

Big influencers like Tasya Farasya and Itsandani tend to function as broadcast hubs: they publish content for a large audience without interacting directly with their followers. This gives them a lot of followers, but their degree tends to be lower because there are fewer reciprocal relationships. High-interaction creators like Tharysahardiyani or Blackxugar tend to be connectors or interactors in the network. They often interact with many other accounts, making their degree much higher than the number of followers reflecting active reciprocal relationships.

In digital marketing, marketers need to consider not only the number of followers but also the active interaction and role of the influencer in the social network. Among the proposed digital marketing strategies, leveraging local influencers is prioritized as the most effective approach, since it plays a critical role in enhancing brand image and reinforcing brand positioning in the marketplace (Wibowo *et al.*, 2024). Marketers can utilize micro-influencers for high engagement, such as Tharysahardiyani and Blackxugar, which are examples of micro-influencers with high engagement. Although their followers are relatively small, their high degree shows they are very active in interacting with their audience. The advantage of micro-influencers like this is that they are very effective for campaigns targeting specific communities because their active interaction builds trust and personal relationships with the audience.

While using Macro-Influencers for Wide Reach, Creators like Tasya Farasya and Itsandani are macro-influencers with huge audiences but fewer direct interactions. The advantage of Macro-influencers is that they are suitable for increasing brand awareness on a large scale because they can reach millions of users with one content.

An optimal marketing strategy involves using strategic combinations, such as macro-influencers, to reach a broad audience and micro-influencers to increase engagement. For example, a brand can use Tasya Farasya to draw attention to a campaign and then work with Tharysahardiyani or Blackxugar to drive conversations in the community.

According to Tabassum, Pereira, and Fernandes (2019), degree centrality is a key metric in Social Network Analysis (SNA) used to understand an individual's position within a network. A high degree indicates that the individual maintains numerous direct connections with other nodes, which, in the context of social media, can reflect active interactions through comments, collaborations, or mentions. This is reflected in the case of Tharysahardiyani, who, despite having 289.2K followers, has a very high degree (1981) indicating intense interaction activity on the TikTok platform.

Furthermore, recent studies emphasize that an effective marketing strategy requires accurate mapping of influence within social networks. According to De Veirman, Hudders, and Nelson (2021), integrating both macro- and micro-influencers strategically can lead to more impactful campaigns. Macro-influencers are effective in generating broad visibility, while micro-influencers are better at fostering engagement and trust within smaller, more targeted communities. For instance, Tasya Farasya can be utilized to build brand awareness at scale, whereas deeper interactions and personalized engagement can be cultivated through micro-influencers such as Tharysahardiyani or Blackxugar, who demonstrate high levels of network centrality and audience responsiveness.

In recent literature, two-way communication and authentic personal interaction are emphasized as crucial elements in shaping public opinion and consumer trust. According to Lou and Yuan (2019), emotional engagement between influencers and their audiences significantly strengthens brand loyalty, especially when the interaction feels genuine and relatable. Similarly, De Veirman, Hudders, and Nelson (2021) highlight that micro-influencers, through frequent and more personalized interactions, are often perceived as more credible and relatable than macro-influencers. This makes them particularly effective in fostering close relationships with followers. Consequently, combining the broad reach of macro-influencers with the intimacy and engagement of micro-influencers presents an effective strategy to balance visibility with deeper audience connection in digital marketing campaigns.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the results of this study, it can be concluded that the number of followers is not always directly proportional to the degree of Social Network Analysis (SNA). This is due to fundamental differences in how the two metrics measure engagement and connection. Degree measures the number of direct interactions made by a creator, not just the level of popularity or how many accounts follow them. In this context, creators with high degrees tend to be more actively involved in

reciprocal relationships and collaborations with other accounts, reflecting their role as dynamically connected actors in the social network. On the other hand, large creators with many followers often act as broadcast hubs whose primary focus is spreading content in one direction. They tend to be less involved in active interactions, such as replying to comments or collaborating, even though they have a large follower base. In addition, other factors such as the level of interaction, the content strategy used, and the focus on community building also significantly influence the creator's degree in the social network.

Active interactions and connectivity established in the social network reflect the fundamental role of a creator in the community, more than just the number of followers they have. The number of followers only reflects popularity, namely the number of accounts that choose to follow a creator on a platform like TikTok. This relationship is one-way; users can follow creators without guaranteeing reciprocal interaction. In contrast, the degree in SNA measures the number of direct connections a node, in this case the creator, has, often involving more meaningful two-way interactions. On TikTok, these forms of interaction can be in the form of comments and replies to comments, mentions of other accounts in content, or direct collaborations such as duet or stitch features. Activities in the form of interactions like this have a more significant impact on increasing degree than just the number of followers. Thus, creators who actively participate in various forms of social interaction will have a high degree, even though their followers may be smaller.

Recommendations

This study has limitations because it only analyzes the characteristics of interactions on the TikTok social media platform. Each platform has unique rules, culture, and interaction patterns. For example, Instagram and Twitter may have different interaction dynamics; where on some platforms, more intense social interactions can drive an increase in degree, while on other platforms, popularity, as measured by the number of followers, may increase the influence of an account without requiring direct interaction. Therefore, further research is needed to analyze other social media platforms to understand the differences in these interaction patterns. A broader network analysis across platforms can provide more comprehensive insights and support the development of more effective digital marketing strategies according to the unique characteristics of each platform.

REFERENCES

Aisyah N and Prabowo H. 2022. Social media engagement and influencer roles in digital beauty marketing. *Journal of Marketing Strategy*. 18(2):104–115.

- Borgatti SP, Everett MG, and Johnson JC. 2018. *Analyzing social networks* (2nd ed.). Thousand Oaks, CA: SAGE Publications.
- Brown A and Lee M. 2020. Evaluating influencer networks in skincare branding using social network analysis. *Journal of Consumer Research and Technology*. 5(3):211–229.
- De Veirman M, Hudders L, and Nelson MR. 2021. What is influencer marketing and how does it target children? A review and direction for future research. *Frontiers in Psychology*. 12:568161.
- Garcia M and Santos E. 2018. The effectiveness of social media campaigns by beauty brands. *International Journal of Digital Marketing*. 6(2):133–147.
- Hernandez M and Gonzalez J. 2021. Centrality and advocacy: The role of network position in the skincare industry. *Journal of Interactive Marketing Research*. 9(4):223–239.
- Heviawati S, Pamungkas GY, Sihotang ET, Mandaiya AM, Azhahira M, Kurnia RR, Sinaga AR. 2025. Terobosan strategi pemasaran: Digitalisasi pemasaran produk inovatif mie instan daun kelor (Mi-Long) bersama Mangogong Company. *Jurnal Sosial Terapan*. 3(1):28–38.
- Kadriu A and Troja A. 2021. Applying social network analysis to consumer behavior in digital platforms. *Journal of Social Media Studies*. 12(1):56–74.
- Kitajima M, Watanabe H, and Nakamura Y. 2022. Identifying micro and mega influencers in digital networks. *Journal of Marketing Analytics*. 10(2):88–101.
- Lin C and Chen Y. 2022. Network clustering and community detection in beauty brand promotions on TikTok. *Journal of Marketing Intelligence*. 14(3):201–215.
- Lou C and Yuan S. 2019. Influencer marketing: How message value and credibility affect consumer trust of branded content on social media. *Journal of Interactive Advertising*. 19(1):58–73.
- Nugroho D and Fitriani E. 2023. Analyzing influencer network structures in TikTok-based cosmetic campaigns. *Journal of Digital Economy*. 8(1):44–59.
- Nugroho D and Lestari M. 2022. The role of e-commerce in SME performance: A case in Indonesian beauty industry. *Journal of Business and Innovation*. 7(2):75–90.
- Setiowati R, Wijaya R, and Handayani PW. 2021. Digital marketing adoption in the Indonesian beauty industry. *Journal of Information Systems and E-Business Management*. 19(1):49–65.
- Tabassum S, Pereira FSF, and Fernandes S. 2019. Social network analysis: An overview. *Wiley*

- Interdisciplinary Reviews: Data Mining and Knowledge Discovery*. 9(6):e1341.
- Wibowo Y, Purnomo BH, and Salsabila. 2024. Brand positioning strategy through digital marketing of commercial rice products at Perum BULOG Jember branch. *Jurnal Teknologi Industri Pertanian*. 34(3):271–278.
- Zhang Y and Sanderson M. 2023. The impact of influencer credibility on consumer intentions on TikTok. *Journal of Marketing Research and Applications*. 11(2):87–104.