JUSHPEN
Jurnal Sosial Humaniora dan Pendidikan
OPEN ACCESS
JUSHPEN Vol 4 No. 2 Agustus 2025 | ISSN: 2829-0410 (Print), ISSN: 2829-0534 (online), Hal 09-16

Social Network Analysis in the Dissemination of Makan Bergizi Gratis (MBG) Program Information on Social Media X

Nadinta Rafifah Suaib[1*], Desna Aryana Pratiwi[2]
Faculty of Communication Sciences, Universitas Gunadarma

Article History
Received : 09 June 2025
Revised : 09 June 2025
Accepted : 07 July 2025
Published : 07 July 2025
Available Online: 07 July 2025

Corresponding author*:
nadintarafifah@staff.gunadarma.ac.id

Cite This Article:
Rafifah Suaib, N., & Aryana Pratiwi, D. (2025). Social Network Analysis in the Dissemination of Makan Bergizi Gratis (MBG) Program Information on Social Media X. Jurnal Sosial Humaniora Dan Pendidikan, 4(2), 09–16.

DOI:
https://doi.org/10.56127/jushpen.v4i2.2067

Abstract: The presence of social media encourages users to be more active in interacting and voicing opinions related to news that is in the spotlight. One notable example is the Makan Bergizi Gratis (MBG) program. The purpose of this study is to identify the social networks formed in the conversations of social media users discussing the Makan Bergizi Gratis (MBG) program. A quantitative approach using the Social Network Analysis (SNA) method was employed to address the research question. The findings indicate that social networks on social media X specifically discuss this program. Geraldd434543 and GenZNusantara are the primary actors with the highest degree of centrality and eigenvector centrality values in the network. A total of 297 nodes demonstrate a closeness centrality value, indicating that these actors are closely connected within the network. The network lacks actors who serve as brokers or intermediaries, based on the centrality values observed.
Keywords: Free Nutritious Meals (MBG), Social Media X, Social Network Analysis (SNA).

Abstrak: Hadirnya media sosial mendorong pengguna untuk lebih aktif dalam berinteraksi dan menyuarakan opini-opini yang berkaitan dengan berita yang sedang menjadi pusat perhatian. Salah satunya adalah program Makan Bergizi Gratis (MBG). Tujuan penelitian ini adalah untuk mengetahui jaringan sosial yang terbentuk dalam percakapan pengguna media sosial yang membahas program Makan Bergizi Gratis (MBG). Pendekatan kuantitatif dengan metode Social Network Analysis (SNA) digunakan untuk menjawab rumusan penelitian. Hasil dari penelitian ini adalah ditemukan jaringan sosial di media sosial X yang khusus membahas program ini. Geraldd434543 dan GenZNusantara adalah aktor-aktor yang memiliki nilai degree centrality dan eigenvector centrality tertinggi dalam jaringan. Sebanyak 297 nodes memiliki nilai closeness centrality yang memperlihatkan aktor-aktor tersebut memiliki kedekatan dalam jaringan. Jaringan ini tidak memiliki aktor yang berperan sebagai broker atau perantara, dilihat dari nilai betweenness centrality dalam jaringan.
Kata kunci: Makan Bergizi Gratis (MBG), Media Sosial X, Social Network Analysis (SNA).

INTRODUCTION

In today's digital era, the public can easily express personal opinions about current issues. One of the topics that continues to spark lively discussion on social media is the Makan Bergizi Gratis (MBG) program, which was implemented during the administration of President Prabowo Subianto and Vice President Gibran Rakabuming Raka.

Makan Bergizi Gratis (MBG) is one of the government's strategic programs aimed at empowering the community's economy at the village level and creating a superior quality of human resources for a more advanced, independent, and equitable Indonesia (Kementerian Sekretariat Negara Republik Indonesia, 2024).

This program runs under the Badan Gizi Nasional (BGN) which plays a role in coordinating the provision of nutritious food in each region for school children, pregnant women, lactating mothers, and toddlers. The National Nutrition Agency (BGN) buys raw materials which are then processed into dishes, and distributed to recipients (Yanuar, 2024).

However, in the implementation in the field, this program turned out to experience several obstacles. Lack of funds, different preferences of children for the taste of cuisine, lack of adequate infrastructure, awareness to eat nutritious food that must be improved, and cases of food poisoning in school children are some of the obstacles that must be faced by the government in organizing this program (Memolo, 2025; Pradipta, 2025).

These obstacles are not spared from being reported by the media, both conventional and digital media. As in the news with the title 'Controversy of the Makan Bergizi Gratis' published by Tempo on April 21, 2025. In this article, Tempo highlights how the Makan Bergizi Gratis (MBG) program is still not being implemented properly (Pradipta, 2025).

The same thing was also covered by several other media, such as CNN Indonesia with the news headline 'Bos Badan Gizi Buka-bukaan soal Masalah dalam Makan Bergizi Gratis', CNBC Indonesia with the news title 'Catatan Kritis Terhadap Program Makan Bergizi Gratis', and detikNews with the title 'Mengatasi Kekurangan dalam Program Makan Bergizi Gratis'.

The presence of these news reports was followed by many public opinions that appeared on social media. Like, 'Makan Bergizi Gratis inisiatif mulia #MakanBergiziGratis #IndonesiaEmas2045 #ManfaatMBG #DukungMBG' - @ I******** S***, and 'Makanya dikasih 2 capres spek pemerhati pendidikan sm program 1 rumah 1 sarjana lo pada malah milih makan gratis & berkelanjutan. Makan tuh mbg basi busuk. gak bergizi tuh' - @ f********** on social media X.

Social media plays a role in encouraging active participation from users because of its interactive nature. This makes it easier for information to spread from one user to another. Social media can create echo chambers, which reinforce existing views so that there is polarization of public opinion (Swastiningsih et al., 2024).

It is interesting to know the social networks formed in the conversations of social media users who discuss the Makan Bergizi Gratis (MBG) program. A social network is a collection of actors or nodes that have relationships with other actors or nodes in a certain type of relationship (Golbeck, 2013, in Eriyanto, 2021). In social networks, there are three key concepts, namely actors or nodes, relationships or links, and types or forms of relationships (Eriyanto, 2021).

Similar research has been conducted by Sitorus (2022) and Prayana (2023). These studies aimed to understand social networks in online protests on social media X by using #CabutPermenJHT56Tahun hashtags about digital protests on social media X (Sitorus, 2022). Study on Pranaya (2023) with the hashtag #PrayForBali examines the form of virtual togetherness during disasters in Bali Province.

RESEARCH METHOD

This study uses a quantitative approach that summarizes data in the form of numbers which is then analyzed (Creswell & Creswell, 2018). The research method used uses the Social Network Analysis (SNA) method, which is a method that seeks to describe and apply the social network and network structure that is formed. The findings of the SNA are the relationships between actors in a given social structure (Eriyanto, 2014).

The data was taken using the Python programming language with the help of tweet-harvest created by Helmi Satria. Tweet-harvest allows users to retrieve data on social media

X (Satria, 2024). Data visualization is done with the help of the Gephi 0.10 application. The data taken are user tweets uploaded to social media X from January 1, 2024, to June 4, 2025.

RESULT AND DISCUSSION

Results

Based on the results of the data retrieval carried out, there were 642 tweets found. The following are the results of the visualization of the data that has been obtained.

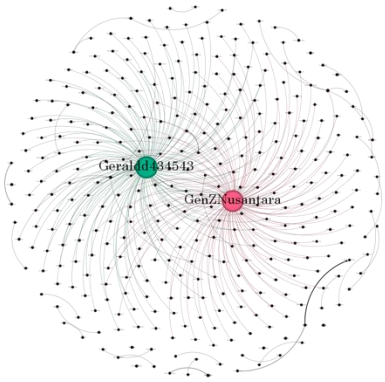


Figure 1.1 Communication Network Visualization on X with Free Lunch Topic (Authors, 2025)

After reading the data by Gephi 0.10, 343 nodes and 313 edges were obtained with directional relationship types in the network. This network has major clusters that dominate the network. This study analyzed the level of actors in whole tissues. Four measures that can be studied in analyzing the level of actors in the whole network are, degree centrality, closeness centrality, betweenness centrality, and eigenvector centrality.

Degree Centrality

In this centrality, what is studied is how popular the actor is based on the relationships he has (Eriyanto, 2014). On this network, Geraldd434543 and GenZNusantara are the most popular actors. Geraldd434543 has 135 edges, whereas GenZNusantara has 130 edges.

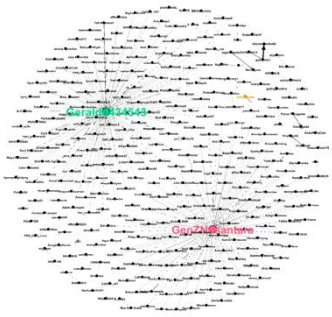
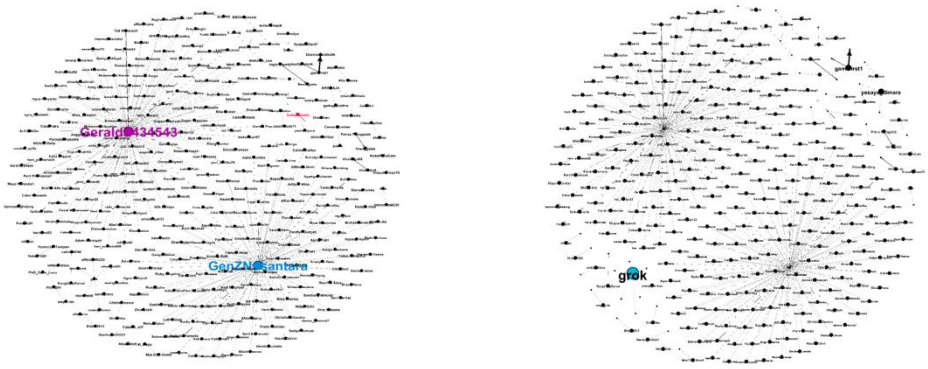


Figure 1.2 Degree Centrality Visualization (Authors, 2025)

Other things that can be studied in degree centrality are indegree and outdegree. Indegree is the number of edges that enter a node. In other words, how many connections

lead to those nodes. Outdegree is the number of sides that exit a node, i.e. how many connections originate from that node to another node (Celko, 2012).



Indegree Centrality Outdegree Centrality

Figure 1.3 Indegree and Outdegree Centrality Visualization (Authors, 2025)

In the indegree centrality network, Geraldd434543 and GenZNusantara are the two actors that dominate the network with the number of edges that enter Geraldd434543 and GenZNusantara are 135 edges and 130 edges, respectively. In the outdegree centrality network, Grok is the actor who has the most edges that go out to other actors as many as 5 edges.

Closeness Centrality

Closeness centrality describes the closeness between actors in the network. The closer the distance between actors, the faster the dissemination of information that occurs in the network and plays an important role in communication or information flow in the network as a whole (Hansen et al., 2020). In the network, there are 297 nodes that have a perfect closeness centrality value, which is 1.

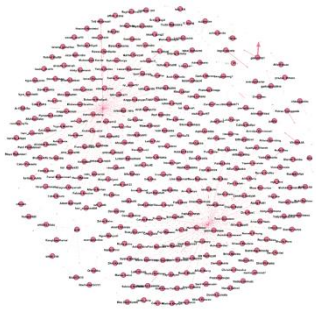


Figure 1.4 Visualization of Closeness Centrality (Authors, 2025)

Betweenness Centrality

Betweenness centrality is used to see the extent to which a node (actor) acts as a bridge or broker that connects other nodes in the network that may not be directly connected (Hansen et al., 2020). Dalam jaringan ini, tidak ada aktor yang menjadi jembaran atau broker antar aktor.

Eigenvector Centrality

Eigenvector centrality looks at actors that have important influence in the network based on their connections to other important nodes in the network. A node is considered important if it is connected to nodes that are also important overall in the network (Hansen et al., 2020). In this network, there are two actors with the highest scores, namely Geraldd434543 with a score of 1.0 and GenZNusantara with a score of 0.962963.

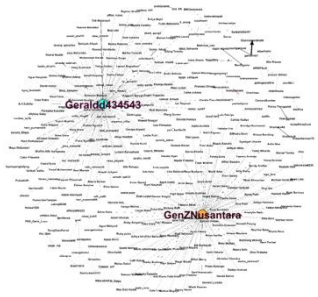


Figure 1.5 Eigenvector Centrality Visualization (Authors, 2025)

Disscussion

The Makan Bergizi Gratis (MBG) social network found on social media X is included in the category of directed networks. This means that there is a relationship between actors that flows from one node to another in a specific direction (Hansen et al., 2020). Because the nature of the data in this network is the communication interaction that exists between users through social media X, where there is an exchange of information, this network falls into the category of a directional network.

Degree centrality, closeness centrality, betweenness centrality, and eigenvector centrality were used to analyze social networks at the actor level. From the values obtained, it can be seen that this network is dominated by two major actors, namely Geraldd434543 and GenZNusantara, which are the accounts that are most mentioned by other actors in this network.

Figure 1.6 Example of Tweets from Geraldd434543 and GenZNusantara Accounts (X.com, 2025)

Based on Figure 1.6, the messages conveyed by the two accounts contain a positive impression of the implementation of the Free Lunch (MBG) program in the Papua region and for the Indonesian people at large. Geraldd434543's tweet was retweeted 229 times and replied to 232 times. Meanwhile, GenZNusantara's tweet was retweeted 240 times and replied to 243 times.

In terms of proximity between actors, there are 297 actors who have a score of 1.0 or only need one step to reach all actors in the network. That way, information will spread very quickly to fellow actors in the network, so that the communication that occurs can be more efficient (Hansen et al., 2020).

With so many actors having perfect closeness values, there is no more central or influential actor in terms of network proximity. In addition, the possibility of high information redundancy in the network can occur. Redundancy is needed to create repetitive exposures that can amplify the dissemination of information and support effective communication in a homogeneous and robust social network (Liang & Fu, 2019).

Another finding is that none of the actors in this network are intermediaries or brokers. This is because many actors in the network have perfect proximity to other actors, so there is no need for brokers or intermediaries in the network. That way, no actor has a strategic position to control the exchange of information between groups (Hansen et al., 2020).

Geraldd434543 and GenZNusantara are the two actors that have the highest eigenvector centrality values in the network. The actor with the highest eigenvector centrality value is the opinion leader in the network. This reflects influence through a direct connection that is well connected to other actors. This allows for an imbalance in the distribution and dissemination of information due to how the network is structured (Bienenstock & Bonacich, 2022).

CONCLUSION

Every opinion conveyed by social media users will form a social network and have actors who have a great influence on the network. The social network that discusses the Makan Bergizi Gratis (MBG) program has 343 nodes and 313 edges. The actors with the highest degree centrality values were Geraldd434543 and GenZNusantara, which also had a high eigenvector centrality value, indicating that these two actors were opinion leaders in the network.

A total of 297 nodes have a perfect closeness centrality value, which is 1.0 which indicates that almost all actors are directly connected and only one step is needed to be able to connect with others. Another thing that was found was that none of the actors were brokers or intermediaries in this network. Similar research can be carried out again to find out how the dissemination of information on important issues occurs. Another thing that can be done next is to be able to analyze the system level and the group level, if homogeneity is found in a whole network.

REFERENCES

Bienenstock, E. J., & Bonacich, P. (2022). Eigenvector centralization as a measure of structural bias in information aggregation. *The Journal of Mathematical Sociology*, *46*(3), 227–245. https://doi.org/10.1080/0022250X.2021.1878357

Celko, J. (2012). *Joe Celko's Trees and hierarchies in SQL for smarties*. Elsevier.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications, Inc.

Eriyanto, E. (2014). *Analisis Jaringan Komunikasi: Strategi Baru dalam Penelitian Ilmu Komunikasi dan Ilmu Sosial Lainnya*. Prenada Media Group.

Eriyanto, E. (2021). *ANALISIS JARINGAN MEDIA SOSIAL Dasar-dasar dan Aplikasi Metode Jaringan Sosial untuk Membedah Percakapan di Media Sosial* (1st ed.). Kencana.

Hansen, D. L., Shneiderman, B., Smith, M. A., & Himelboim, I. (2020). *ANALYZING SOCIAL MEDIA NETWORKS WITH NODEXL*. Elsevier.

Kementerian Sekretariat Negara Republik Indonesia. (2024, December 18). *Makan Bergizi Gratis dan SDM Unggul*. Kementerian Sekretariat Negara Republik Indonesia. https://www.setneg.go.id/baca/index/makan_bergizi_gratis_dan_sdm_unggul

Liang, H., & Fu, K. (2019). Network Redundancy and Information Diffusion: The Impacts of Information Redundancy, Similarity, and Tie Strength. *Communication Research*, *46*(2), 250–272. https://doi.org/10.1177/0093650216682900

Memolo, T. (2025, January 17). *Mengatasi Kekurangan dalam Program Makan Bergizi Gratis*. Detiknews. https://news.detik.com/kolom/d-7733919/mengatasi-kekurangan-dalam-program-makan-bergizi-gratis

Pradipta, K. (2025, April 12). *Kontroversi Program Makan Bergizi Gratis*. Tempo. https://www.tempo.co/infografik/infografik/kontroversi-program-makan-bergizi-gratis-1234135

Pranaya, A. A. (2023). Analisis Jaringan Sosial Terhadap Pembentukan Virtual Togetherness Melalui Tagar# PrayForBali. *Jurnal Ilmu Komunikasi UHO: Jurnal Penelitian Kajian Ilmu Komunikasi Dan Informasi*, *8*(4), 643–655.

Satria, H. (2024, July 2). *Crawl Data Twitter Menggunakan Tweet Harvest - Juli 2023*. Helmi Satria. https://helmisatria.com/blog/crawl-data-twitter-menggunakan-tweet-harvest/

Sitorus, A. M. H. (2022). Social Network Analysis (SNA) Tentang Protes Digital di Twitter: Studi Pada Tagar #CabutPermenJHT56Tahun. *SOSIOGLOBAL: Jurnal Pemikiran Dan Penelitian Sosiolog*, *7*(1).

Swastiningsih, S., Aziz, A., & Dharta, Y. (2024). The Role of Social Media in Shaping Public Opinion: A Comparative Analysis of Traditional vs. Digital Media Platforms. *The Journal of Academic Science*, *1*(6), 620–626. https://doi.org/10.59613/fm1dpm66

Yanuar, Y. (2024, December 3). *Bagaimana Cara Kerja Satuan Layanan Penyedia Makan Bergizi Gratis?* Tempo. https://www.tempo.co/ekonomi/bagaimana-cara-kerja-satuan-layanan-penyedia-makan-bergizi-gratis--1176480