Sentiment analysis on Indomie vs Gaga polemic using TikTok data

Erna Hayati[1]*, Moh. Rosidi Zamroni [2], Dwi Hari Prayitno [3], Evi Rachmawati [4]

[1]Department of Accounting, Faculty of Economics, Universitas Islam Lamongan,
[2]Department of Informatics, Faculty of Engineering, Universitas Islam Lamongan

Abstract
This article reports on the results of research work of comment data on TikTok taken from the Indomie and Gaga accounts to determine netizen sentiment regarding the Indomie vs Gaga polemic. A total of 2861 data were collected from the comment column on TikTok using the crowling process. Sentiment analysis in this research uses the Lexicon approach. The research results indicated that Gaga received more positive sentiments (50.6%) than negative sentiments (14.1%). On the other hand, Indomie received more negative sentiment (52.2%) compared to positive sentiment (32%). The impact of netizens' positive sentiment towards Gaga was the emergence of panic buying of Gaga and the shares of PT Wicaksana Overseas International Tbk (WICO) rose quite significantly. Meanwhile, negative sentiment towards Indomie affected investors in the stock market which resulted in the shares of PT Indofood CBP Sukses Makmur Tbk (ICBP) falling.

Keywords:
Indomie vs Gaga polemic; sentimen analysis; Lexicon.

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*Corresponding author
Email: ernahayati@unisla.ac.id

Introduction

In the current era of technological disruption, social media and its users are growing very rapidly. Currently more than 130 social media platforms are available on the Play Store and App Store. In 2023, the total number of social media users worldwide will be 4.8 billion (Nyst, 2023). Based on a report from We Are Social, the total number of social media users in Indonesia has reached 167 million or the equivalent of 60.4% of the total population of Indonesia (Widi, 2023). The significant increase in the number of social media users provides opportunities for various parties to utilize social media, not only as a medium for communication, information and socialization, now social media is also used for marketing media and campaigns.

Currently, the most popular social media platform when viewed from the perspective of its usage is TikTok. On average, every month social media users

spend 31 hours 32 minutes opening TikTok (Nyst, 2023). TikTok users themselves currently reach more than 1 billion users worldwide and Indonesia is ranked the second most TikTok user in the world (Annur, 2023), so it is not surprising that several uploads on TikTok very easily become trending topics in cyberspace. One of the uploads on TikTok that caught the attention of many people in Indonesia and became a trending topic was an upload about Indomie's polemic with Gaga. It started with an upload on TikTok in early August 2023 regarding the Commissioner of PT Jakarana Tama, Gaga's producer, namely Djajadi Djaja, who was allegedly the inventor of Indomie, before finally Djajadi Djaja entered into a polemic with Sudono Salim, who is the current owner of the Indomie brand. As a result of this news, various negative comments filled the comments column on Indomie's social media and conversely, Djajadi Djaja, the commissioner of the Gaga instant noodle producing company, received a lot of support.

Negative sentiment on social media about the owner of Indomie had a significant impact on the decline in shares of the Indomie producer, namely PT Indofood CBP Sukses Makmur Tbk (ICBP). On September 1 2023, ICBP's share price was at 11,200 Rupiah per share or a decrease of 4.27% compared to the position on August 18 2023, 11,700 Rupiah per share. If we look at market capitalization, ICBP lost 5.83 Rupiah Trillion on September 1 2023 based on the decline in its shares (CNBC Indonesia Research Team, 2023). This is inversely proportional to the impact felt by Djajadi Djaja. Even though PT Jakarana Tama has confirmed that it does not know anything about the coverage of the Indomie vs Gaga polemic, support for Gaga is increasing every day. Many netizens empathize with Djajadi Djaja so that netizens unite to buy Gaga. Several minimarkets and supermarkets experienced depletion of Gaga stock and quite a few even had their stock empty because they had been bought up (Fitria, 2023). Apart from that, netizens' positive sentiment towards Gaga apparently had an impact on the shares of PT Wicaksana Overseas International Tbk (WICO). PT Jakarana Tama is a related party and WICO client in the distribution of Gaga (Desfika, 2023). It is also known that Djajadi Djaja served as president commissioner of the company at WICO. During September 2023, WICO shares experienced a very significant increase. There is 168.33% from 120 Rupiah per share to 322 Rupiah per share.

On social media, netizens have the freedom to provide comments, both positive and negative comments. Opinions given by netizens can have an impact on the parties involved, such as in the case of Indomie and Gaga. Therefore, research on sentiment analysis is very necessary. Sentiment analysis is a text data process that aims to obtain information from the text (Siswanto et al, 2022). Research on sentiment analysis has been carried out in various fields. During the Covid-19 pandemic, sentiment analysis was widely carried out to

determine public sentiment towards the policies implemented by the government in overcoming the Covid-19 pandemic, to find out people's feelings when facing Covid-19 and so on, such as research conducted by Naufal and Kusuma (2022), Rakhman et al (2021), Hota et al (2021), Prasetya et al (2021), Syakur (2021), and Mustofa and Prasetiyo (2021). The application of sentiment analysis in the business sector was carried out by Sari and Wibowo (2019), Lestari (2023), and Hoiriyah, et al (2023), in the field of education, namely Aung and Myo (2017), and Rozi and Purnomo (2021) and there is much more research on sentiment analysis applied in various other fields.

This research aims to analyze public or netizen sentiment towards Indomie and Gaga products after posts about the history of Indomie appeared on TikTok using the Lexicon approach. The Lexicon approach is used to group the sentiments of TikTok users into positive, negative or neutral sentiments. TikTok social media was chosen because this is where the first upload about the origins of Indomie appeared. With this sentiment analysis, it is hoped that it can provide an overview of the tendencies of people's thoughts and behavior in responding to viral news about the Indomie and Gaga polemic, so that it can provide input to interested parties, especially Indomie and Gaga producers, in making policy decisions.

Research method

The data in this research uses netizen comments on TikTok on the Indomie and Gaga accounts. The stages that are followed in the data collection process until the data is ready to be analyzed are as follows:

1) Crawling TikTok Data

Netizen comment data is taken on TikTok through a crawling process using the Python language. Data was taken from August 2023 to September 2023.

2) Preprocessing

This stage is carried out to prepare the data so that it is ready for further processing. In this research, the preprocessing stage uses a case folding process, namely changing letters to lowercase, removing punctuation marks, numbers and empty characters.

After the data goes through the preprocessing stage, netizen comments on TikTok will be grouped into positive, neutral and negative sentiment by calculating the polarity value using the Lexicon approach. If the polarity value of a comment is more than zero, it is categorized as positive sentiment. Comments whose polarity value is equal to zero will be categorized as neutral sentiment and comments whose polarity value is less than zero will be categorized as negative sentiment. The stages carried out in analyzing this research data can be described as follows.

1) Collect data in the form of netizen comments taken by the data crawling process on TikTok
2) Carry out the data preprocessing process using the case folding process
3) Classify netizen comments into negative, neutral or positive sentiment categories based on their polarity value using the Lexicon approach.
4) Perform data visualization to make it easier to extract information from the data

Data analysis and result

The content about Indomie's polemic with Gaga which became a trending topic on TikTok had more or less an impact on Indomie and Gaga. The various comments typed by netizens are interesting to analyze in order to determine public sentiment towards the two instant noodle products. From the results of the crawling process, 2861 data were obtained which were taken from the comments column of the Indomie and Gaga TikTok accounts. After passing preprocessing, the data is then categorized into negative, neutral or positive sentiment based on the polarity value using the Lexicon approach. The following diagram shows the distribution of public sentiment towards Indomie and Gaga.

Figure 1.
Indomie Sentiment Distribution

Neutral, 15.8%
Positive, 32.0%
Negative, 52.2%
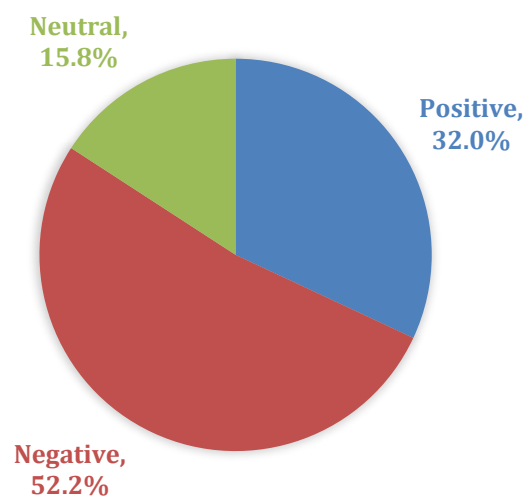
Figure 2.
Gaga Sentiment Distribution
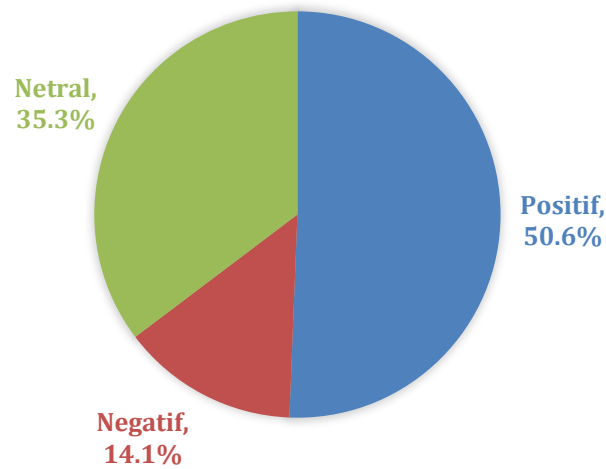
From the graph above, it can be seen that the percentage of negative sentiment towards the Indomie brand is higher than positive and neutral sentiment. 52.2% of TikTok users gave negative comments, 32% gave positive comments and 15.8% of netizen comments on TikTok were grouped in the neutral category. Meanwhile, for Gaga products, TikTok users give more positive responses. There were 50.6% of comments categorized as positive sentiment on Gaga, 35.3% categorized as neutral sentiment and only 14.1% categorized as negative sentiment. To find out more about TikTok users' emotional reactions to Indomie and Gaga, you can see the word cloud below.

Figure 3.
Word Cloud Positive Sentiments about Indomie and Gaga

In the word cloud image for positive sentiment, the words that appear most often are "enak", "coba" and "suka". Furthermore, opinions on positive

sentiment showing the community's sympathy and support for Djajadi Djaja can be seen in the number of words "semangat", "jaya jaya", "sabar" and "dukung".

Figure 4.

Word Cloud Negative Sentiments about Indomie and Gaga

Meanwhile, the visualization of words that often appear in negative sentiment shows that the words that often appear are "beli", "goreng", "kayak" and "bau". Indomie accepts more negative opinions than positive opinions. Many netizens criticized the unpleasant smell of one of the Indomie variants. On the other hand, some of the negative opinions that have emerged are proof of public support for Gaga. This can be seen in the frequent appearance of the words "maaf", "pindah" and "keluar". These three words illustrate that netizens who were originally Indomie consumers switched to Gaga.

Discussion

Content on TikTok about the history of Indomie has had an impact on the two instant noodle producers. The stories conveyed in this content provide extraordinary marketing power. The story then forms mass emotions that can move them or what is called a netizen movement. In the video or content on TikTok about the history of Indomie, it is narrated that Djajadi Djaja is described as the party who received injustice. This narrative then became a topic of discussion among the general public, giving rise to feelings of sympathy. From the results of sentiment analysis in this research, it shows that netizens gave more positive sentiments (50.6%) to Gaga than negative sentiments (14.1%). The feeling of sympathy for Djajadi Djaja or Gaga gave rise to a movement. This movement has two goals. The first goal is to build awareness for Gaga which is then manifested in various things such as curiosity about Gaga so that netizens flock to buy Gaga which in the end causes panic

buying and impulse buying, some even destructively move to Gaga. This is also shown in the visualization results with a word cloud on negative sentiment where the words that often appear are "maaf", "pindah" and "keluar". Massive purchases of Gaga products have resulted in Gaga's stock running out in several minimarkets (Fitria, 2023). Gaga producers can use this viral moment to increase consumer awareness and loyalty towards Gaga. The second aim of this movement is to feel disappointed with the current owners of Indomie, giving rise to negative sentiment. This is reinforced by the results of sentiment analysis on Indomie which received more negative sentiment at 52.2%. This negative sentiment affected investors on the stock exchange which resulted in ICBP's market capital being corrected to a loss of 5 trillion Rupiah. Indomie's step not to provide any statements regarding the news circulating is the right step. As a big brand, Indomie has emotional and functional value. Emotional value can be seen from the stories and history surrounding the Indomie brand. The functional value can be seen in the taste of Indomie. Slowly, Indomie must emphasize the values that can improve its reputation.

From the Indomie and Gaga polemic, it can be concluded that a brand's reputation is very important. Brand reputation can make a business soar high or even decline significantly. Brand reputation is very important because it can influence consumer trust, loyalty and purchasing decisions. A good reputation must be maintained to achieve long-term business success.

Conclusion

Comment data on TikTok has great potential to be utilized by many parties in various fields to see the sentiment of TikTok users. In this research, TikTok data was used to see netizen sentiment towards the Indomie story which had an impact on the emergence of feelings of sympathy for Djajadi Djaja, the commissioner of the Gaga producer and negative sentiment towards Indomie, resulting in the shares of the Indomie producer ICBP experiencing large losses. Sentiment analysis in this case is needed so that it can provide input to interested parties in decision making.

Based on data obtained from 2861 data, the results showed that Gaga received higher positive sentiment than neutral and negative sentiment. On the other hand, Indomie received higher negative sentiment compared to neutral and negative sentiment. From the Indomie and Gaga polemic case, it can be concluded that brand reputation is very important. Maintaining brand reputation is a top priority so that the business benefits in the long term.

This research uses text data that has high dimensions. To be able to increase the accuracy of grouping text into negative, positive or neutral sentiment, the data preprocessing section should not only go through the

casefolding process, it can also be added with tokenizing, filtering and stemming processes.

Author contribution
Erna Hayati: Conceptualisation and Research Design, Data Analysis and Writing Paper.
Moh. Rosidi Zamroni: Data Crawling, Data Preprocessing and Visualization.
Dwi Hari Prayitno: Data analysis and Writing Paper.
Evi Rachmawati: Editing and Layouting.
All Authors have read and approved the final version of the paper.

Declaration of interest
We certify that we have no affiliation with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this paper.

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