Social Media Network Analysis on Twitter Users Network to the Pension Plan Policy

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ABSTRACT
This article researching the network of Twitter users on the dissemination of tweets on the Pension Plan policy in Indonesia. A qualitative method with social media network analysis approach was used. Then, data sources were obtained from Twitter social media through #JHT_JokowiHarusTurun, #jaminanhariita, and #JHT. Furthermore, to manage data source, NVivo 12 plus software was used to analyze qualitative data from Twitter social media – including dissemination rate of tweets, followed by geographical map tweet stream, Twitter users’ network pattern, sentiment proportion, as well as words frequencies. Our results indicate that there are networks found from Twitter users with some account backgrounds in politicians, political parties, governments, online news media, actors and also cultural practitioners who participate in disseminating tweets. Even this network generated the significant distribution patterns and sentiments to a moderately negative value, coupled with pleasanties that are echoed between protests and support by words cloud to this movement. Overall, our research contributes to better understanding of how social media-promoted collective protest movements have the power to impact public opinion and policy and that their evolution is unexpected.

KEYWORDS
Hashtag; Twitter; Pension Plan; Indonesia; Network User

ABSTRAK
Artikel ini mengkaji jaringan pengguna Twitter terhadap penyebaran kicauan kebijakan Jaminan Hari Tua di Indonesia. Metode yang digunakan adalah metode kualitatif dengan pendekatan analisis jaringan media sosial. Kemudian, sumber data diperoleh dari media sosial Twitter melalui #JHT_JokowiHarusTurun, #jaminanhariita, dan #JHT. Selanjutnya, untuk mengelola sumber data, perangkat lunak NVivo 12 plus digunakan untuk menganalisis data kualitatif dari media sosial Twitter – termasuk tingkat penyebaran tweet, diikuti oleh aliran tweet peta geografis, pola jaringan pengguna Twitter, proporsi sentimen, serta frekuensi kata. Hasil kami menunjukkan bahwa terdapat jaringan yang ditemukan dari pengguna Twitter dengan beberapa latar belakang akun politisi, partai politik, pemerintah, media berita online, aktor dan juga praktisi budaya yang berpartisipasi dalam menyebarankan tweet. Bahkan jaringan ini menghasilkan pola distribusi dan sentimen yang signifikan ke nilai yang cukup negatif, ditambah dengan basa-basi yang digaungkan antara protes dan dukungan dengan kata-kata awan untuk gerakan ini. Secara keseluruhan, penelitian kami berkontribusi pada pemahaman yang lebih baik tentang bagaimana gerakan protes kolektif yang dipromosikan media sosial memiliki kekuatan untuk memengaruhi opini dan kebijakan publik dan bahwa evolusi mereka tidak terduga.

KATA KUNCI
Tagar; Twitter; Jaminan Hari Tua; Indonesia; Pengguna jaringan.
INTRODUCTION

In the last decade, collective movements to respond to various public issues are no longer carried out only on the streets; they are also found in virtual arenas such as social media. The number of scholars who study the public resistance movement through social media is increasing because of the inequality of policies produced by the authorities. Moreover, there is a wave of protests on political issues and public policies, such as mobilizing people toward political reform and public policy discourse (Workneh, 2021). People's freedom to express their goals is represented in protest movements (Hakim & Rahmat, 2020), mobilizing action and consolidation, and bringing crucial issues against government policies (Nofrima, et al., 2020; Sutan, et al., 2021). There is an opposition change hanging from the regime's authoritarian political game after experiencing repression (Radi, 2017), and there is also a protest against the extradition bill (Bhatia & Ross, 2021). Apart from the various kinds of protest movements through social media mentioned above. As a result, collective movements are considered an effort to attract the attention of social media users and lead them to issues raised (Hunt & Gruszczynski, 2021). The impetus for public protest actions against government policies through social media is increasingly being found in various protests. This situation opens up a new democratic space for expressing multiple forms of movement to respond to the public problems considered to have inequality.

Scholars have used various approaches, such as mapping public protest actions through images and visual narratives on Twitter (Bosch & Mutsvairo, 2017; Cowart, Saunders, & Blackstone, 2016). In addition, some use tweet content narratives (Ashfaq, Shahid, & Zubair, 2021), while some focus on the use of hashtags in protesting against anti-government (Sinpeng, 2021), especially policies (Arugue & Calvo, 2018). There was also the use of hashtags in responding to guidelines that were against investment in a product (Pratama, et al., 2022) and the use of hashtags for brutality (police) since the counter-extradition policy action (Wang & Zhou, 2021). Thus, there have been so many public protest events through social media networks, which are also considered capable of making decisions to be disturbed the collective protest movement that has been promoted (Battaglini, 2017). Therefore, social connections through social media networks can affect policymakers for joint movements (Battaglini & Patacchini, 2019). In addition, the presence of social media networks can become a mobilization space for the dynamic fusion of the public protest movement (Harmatiy, et al., 2021).

The protest movement over government policies in Indonesia has been observed recently, especially on social media, that it has heated the existence of a collective movement to reject and revise the policies passed in the Pension Plan policy (JHT). The JHT program can be interpreted as a social security program for workers given when they retire, are permanently disabled, or die, in the form of cash (Ariningsih, et al., 2021; Hennigusnia & Kurniawati, 2021). This program is seen as an effort to provide labor protection when workers retire and have savings for elections when they are no longer
working (Agara, Santoso, & Puspitawati, 2021). Therefore, the old-age security fund has been designed to improve the family's welfare after retirement (Tao, 2017). However, several factors significantly affect the content and policies of the JHT program in terms of the sociological reality of society (Wijayanti & Jannah, 2019a). Many workers experience layoffs or lose their income at a productive age due to an event, which results in workers being forced to disburse JHT benefits when laid off (Wijayanti & Jannah, 2019a). This view is also experienced when people are affected by COVID-19, where they experience difficulties in everyday life. However, enacting the new JHT policy has implications for the conditions for disbursing JHT, which can be paid at 56 even though you received layoffs at a young age. Therefore, the tension in responding to the JHT program began to emerge when the Regulation of the Minister of Manpower of the Republic of Indonesia Number 2 of 2022 concerning Procedures and Requirements for Payment of Pension Plan Benefits was ratified. The regulation provides an excellent polemic for the community. It is also covered by various popular national news media in Indonesia, such as carrying out many street demonstrations (Primadhyta, 2022) and signing online refusal petitions online (Apriadi & Nirmala, 2022) and protests on social media networks (Aida, 2022; CNN Indonesia, 2022). Many arguments are circulating about the policy of the new JHT program, especially on social media as a medium that currently produces many collective movements responding to public issues, one of which is JHT.

From several recent studies, we have found a lot of collective protest movements over policies. Still, we have not found any literature that examines the protests against the Pension Plan policy through social media. This article is significant because it provides a new way to fill gaps in the study. Mameli, et al. (2022) have noted that social media networks are currently a popular area for research, where researchers explore the expressions of social media users regarding several events, especially debates related to political topics. Therefore, our article investigates the network of social media users on Twitter on the issue highlighted in the media over the Pension Plan policy, which the Indonesian government passed on February 4, 2022. Not long after it was ratified, the policy became a polemic in the community. Many rallies are carried out in several places, even on social media; the information intensity is estimated to peak on February 12, 2022. In this work, we examine the spread of the Pension Plan on Twitter by discussing it in-depth with several markers. As the identification intended, we use hashtags. A Twitter hashtag is a string of characters starting with a #character. Users enter it along with their message content to indicate keywords or topics related to the tweet (Hemphill, Culotta, & Heston, 2013). Thus, hashtags, used to identify specific events or themes, are a leading social media tool that facilitates real-time engagement and discourse (Gyamfi & Williams, 2019). Therefore, hashtags in conjunction with tweets are a form of linguistic data generated by Twitter and have very high and varied fragmentation. Among the hashtags studied in our work are #JHT_JokowiHarusTurun, #jaminanharitua, and #jht.

In this work, we provide several subsections on the study of the Twitter user network in leading protests or support for the Pension Plan policy in Indonesia. Namely, we
examined the dissemination rate, followed by a tweet stream on the geographical map; next, 'Twitter users' network pattern; more about sentiment proportion; and frequency of words.

Several previous studies have examined the role of social media as a tool to express collective action in the spread of protest and disobedience to counter public policies. Chon & Park (2020) view social media as a strategic space for increased mobilization and collective community interaction to solve specific problems. Consequently, Cortés-Ramos et al. (2021) found that social media has grown into a new type of movement in the forum for youth participation in community protests. There is expected to be a significant increase in the frequency of their interactions, such as on Twitter. Thus, Freelon et al. (2018) state that the power of social media today is vital because most of the communication activities of social movements ultimately change the debate on the topic at hand. The evidence for the protest movement on social media is summarized by Jost et al. (2018), who find the emotional and motivational components in supporting and opposing protest activities, including messages emphasizing anger. Also, the structural dimensions of online social networks have significant implications for information exposure and success or failure. In this case, Lim (2018) reveals a role for repertoire in expanding protest actions, such as using hashtag protests and hashtag activism to guide public discourse by curating many comments. In addition, Casas & Williams (2019) provide evidence that the protest argument is widely spread on social media, influenced by activities accompanied by images that trigger stronger emotional reactions than text. In terms of effectiveness, Chan (2017) believes materials distributed through social media directly influence opportunities for social media users to invite protest because the call to action is faster. Larson et al.’s (2019) link on social networks acts as an information channel, potentially influencing protest behavior as individuals can influence each other. Thus, this then aims to explore protests against counter-public policies on social media as a forum for framing collective movements.

Pension Plan policies have developed rapidly in several countries and have been studied explicitly by several academics. As Zhao et al. (2018) looked at the financial risks of pension plans, they revealed that risk assessment of the Pension Plan system is critical to avoid shocks to the demographic structure and economic transition in old age. In some countries, there is a motive for post-retirement workers to continue working, which Hess et al. (2021) describe as financially driven, status-driven, contact and pleasure-driven, and generatively driven. Furthermore, according to a study by Tao (2017) in Germany, the current pension system reform has become much more gender-neutral, ‘feminine’ and ‘family-friendly, by balancing the pension rights of both sexes. Then, Han & Meng (2021) noted that in China, the low contribution rate of workers motivates firms to participate in pension programs for urban enterprise workers and increases fund income. The State Council of the People’s Republic of China officially revealed that the social pension system for private and public employees would be unified. They
considered the provision of strict benchmarks with public policy implications for plan design, cost estimation, management approaches, and risk (Chen, 2018).

Furthermore, in a study by Valkonen (2020) in Finland, pension schemes have not been able to overcome the difficulties of efficiency and risk sharing; however, guaranteeing Pension Plan at an affordable cost has provided a reliable way. Research from Medaiskis & Eirošius (2019) compares Lithuanian and Swedish pension systems from a design and performance perspective. Meanwhile, Minoldo & Peláez (2021) study examined the pension system guarantee instrument, which was designed with a human rights approach. Overall, Ash-shidiiqi et al. (2021) revealed that the Pension Plan policy is one form of old-age insurance investment. There are many claims before old age; Wijayanti & Jannah (2019) see that the high number of shares cannot be separated from participants’ strategies starting early. They feel they need assistance funds when facing the danger of losing income, and some are worried that regulations will change. Funds will no longer be available, so they bring benefits early. Indrawati et al. (2020) demonstrate that the pension fund is set aside monthly from salary deductions and managed by an institution appointed by the government. No one has researched the protest against the Pension Plan policy in Indonesia— the unstable economic situation is especially acute in Indonesia because the new regulations do not reflect the pro-public view of the precarious financial situation.

METHOD

A qualitative study has become a solid basis for this research method; using a social network analysis approach has provided space for an in-depth analysis of the network’s density under study. Next, we analyzed the data using the NVivo 12 plus software. Starting our work by examining data sources through findings on social media, we use the social media platform Twitter because the frequencies presented are diverse and dense. By analyzing #JHT_JokowiHarusTurun, #jaminanharitua, and #JHT. Then, the hashtags obtained were captured using NCapture for NVivo. After receiving this data, it was analyzed with several menus in NVivo 12 plus, such as distribution chart tweets, geography maps (location); cluster and sentiment analysis; and word frequency. Some of these menus are considered to answer the research objectives by examining tweets’ dissemination with Twitter users’ hashtags against the JHT program policies.

RESULT AND DISCUSSION

The debate regarding the Pension Plan policy in Indonesia had been found on Twitter, and it focused on three hashtags such as #JHT_JokowiHarusTurun, #jaminanharitua, and #JHT. We scrutinize the distribution of tweets by geography map, user network, the spread of sentiment tweets, and word frequencies.
Hashtags have monitored the spread of protests against the Pension Plan policy on Twitter. Overall, each hashtag has a network of actors protesting the Pension Plan policy. The hashtag #JHT_JokowiHarusTurun has been detected by a user strikingly expressing his protest. The user is @km03_s. Therefore, the most powerful producing hashtag #Jaminanharitua is @kemenakerri. The most potant hashtag, #JHT, was posted by @adlawisamsudin.

First, the overflow of protests against the Pension Plan policy on Twitter has invited some parties to use #JHT_JokowiHarusTurun, which has been twisted with another name. There is an account @km03_s as the user with the highest level of spreading protests against JHT policies. The account has 288 tweets, or a percentage of 7.66 percent, followed by @MariaAlcaff, with 192 tweets, or 5.11 percent. From the general use of the hashtags above, the public protested against JHT’s policies.

Furthermore, the distribution of the hashtag #Jaminanharitua is not very significant in its use when compared to the other two hashtags. This hashtag spread as many as 455 tweets, where the most striking spread of tweets was from @kemenakerri with 112 tweets or 30.27 percent, followed by several Twitter users from netizens with various
percentages of tweets spreading. From the review of Twitter users above, @kemnakerri is a social media account from the government-Ministry of Manpower of the Republic of Indonesia. In addition, several popular news media in Indonesia, through their Twitter accounts, such as @kompascom, @republikaonline, @lensaindonesia, and @Metro_TV, also took part in disseminating information on the Pension Plan policy. Apart from all that, the @kemnakerri account is an account that has made an effort to understand all Twitter social media users about their concerns in disbursing Old Age Security funds. One of the many tweets is.

Finally, the spread of the hashtag #JHT has been investigated, where Twitter users who have a particular distribution rate are @AdlawiSamsudin and @fadlizon. Twitter user @AdlawiSamsudin has led with 935 tweets with 35.14%, followed by user @fadlizon with a spread rate of 862 tweets or 32.39%. From the background of the two accounts, @AdlawiSamsudin is a book writer, while @fadlizon is a famous politician. There are several other accounts, such as @kemnakerri, also used. #JHT, from @sudjiwotedjo, an Indonesian actor and culturalist who also protested the Pension Plan policy through a tweet he shared. This hashtag was also echoed by several popular news media in Indonesia: jpnncom, @republikaonline, @kompascom, and @tvonenews. Furthermore, several political parties responded to the #JHT hashtag, such as @PKSDKIJakarta, @DPP_PPP, and @Official_PAN. To sum up, the distribution of #JHT as a hashtag has high inclusiveness in conveying protests and support for the Pension Plan policy, where there are actors such as personal accounts of politicians, writers, actors, and culturalists and government, news media, and political parties.

Figure 2. Tweet stream on Geographical Map Regarding Pension Plan Policy
The spread of hashtags for protesting the Pension Plan policy in Indonesia on Twitter has spread to various places. Overall, the hashtag #JHT_JokowiHarusTurun has been relatively widespread compared to the other two hashtags. The spread of this hashtag has occupied several continents, especially in Southeast Asia. Besides the debate on using servers to manipulate the stretch, our results show the spread of hashtags outside Indonesia. Unmitigated, the hashtags #Jaminanharitua and #JHT were scattered in several places. In Indonesia, the distribution of the three hashtags above is very high; the fragmentation of the issue is highlighted as crucial.

**Table 3. Twitter User' Network Pattern Regarding Spread' JHT's Policy on Social Media**

![Network Patterns](image)

<table>
<thead>
<tr>
<th>#JHT_JokowiHarusTurun</th>
<th>#Jaminanharitua</th>
</tr>
</thead>
<tbody>
<tr>
<td>#JHT</td>
<td></td>
</tr>
</tbody>
</table>

Source: Cluster Analysis, NVivo 12 plus.

Responding to the Pension Plan policy on Twitter social media has resulted in several networks of users who have voiced protest or support for establishing JHT regulations. Overall, from the three hashtags above, it can be seen that hashtag
#JHT_JokowiHarusTurun has a significant point in the distribution of user networks compared to #jaminanharitua and #JHT. The use of #JHT_JokowiHarusTurun can be considered a collective movement of Twitter social media users in disseminating the majority of protests compared to support for JHT policies. In contrast to #jaminanharitua and #JHT, the two hashtags have no segmentation in providing demonstration or support. Therefore, the hashtag is considered normal to be used by users who support or oppose the JHT policy, in contrast to #JHT_JokowiHarusTurun, which has a sarcastic meaning. Although we also do not justify using #JHT_JokowiHarusTurun as a collective protest movement, the hashtag may be a response (retweet) to some user tweets that are against the policies of users who support JHT. A sentiment study on tweets wrapped with hashtags is needed to see the tendency of Twitter users to respond to the Pension Plan policy. Sentiment analysis is a growing trend of users expressing their opinions on social media. The segments monitored through hashtags regarding the Pension Plan policy are as follows.

| Table 4. Sentiment Proportion Related Pension Plan Policy – Looking at Hashtags |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
|                                 | Very Negative   | Moderately      | Moderately      | Very Positive   |
|                                 | (VN)            | Negative        | Positive        | (VP)            |
| #JHT_JokowiHarusTurun          | 33.95%          | 63.46%          | 2.59%           | 0%              |
| #jaminanharitua                | 5.97%           | 43.68%          | 31.61%          | 18.75%          |
| #JHT                          | 12.65%          | 63.25%          | 14.16%          | 9.94%           |

Source: NVivo 12 plus

Sentiment tweets wrapped in hashtags have been presented, and Twitter users have expressed views in response to the Pension Plan policy. Overall, sentiment is striking in the moderately negative section of each hashtag in the case study. First, the distribution of #JHT_JokowiHarusTurun is dominant in influencing users to convey relatively negative sentiment narration. The hashtag frequency is considered to exceed half a percentage of the whole section, where it gets a rate of 63.46%. Another striking point is the hashtag #JHT_JokowiHarusTurun. There is no proportion for a tweet wrapped in a hashtag in the Very Positive section. Besides that, the JHT policy controversy has also given sentiment segmentation on the #jaminanharitua. Twitter users also use this hashtag, where the MN sentiment share is very high at 43.68%, followed by moderately positive sentiment at 31.61%. Therefore, #jaminanharitua is seen as the strongest segmentation in the spread of protest and support for the JHT policy. Finally, the distance of #JHT is also very high in the MN sentiment section, with a value of 63.25%. The MNN sentiment gain on this hashtag exceeds half of the total percentage.
Various tweets wrapped in hashtags have appeared in the three cases above. Several dominant words are different but have the same segmentation, contrary to the Pension Plan policy. First of all, in #JHT_JokowiHarusTurun detected words that are pretty significant, leading to several fragments of the phrase "kedaulatan" or (sovereignty), "menyengsaraan" or (miserable), "penghianat" or (traitor), "penindasan" or (oppression), "menyusahkan" or (troubled), "menderita" or (suffering), and also followed by other hashtags such as #jokowitherealdictator. In addition, #jaminanharitua has fragments of the word frequency on "kesejahteraan" or (welfare), "demokrasi" or (democracy), "perlindungan" or (protection), "kepastian" or (certainty). Some hashtags follow, such as #jernihkanharapan, #politiksansantalalamkartun. Finally, #JHT has fragments of the words "merugikan" or (harm), "kehilangan" or (lose), "penjelasan" (explanation), "sepeserpun" or (a penny), and "memberikan" or (give), as well as "perlindungan" or (protection).

CONCLUSION

In this context, the collective protest movement against a policy can be seen on social media, especially Twitter. Social media Twitter is a strategic place to express opinions or concerns about a policy considered contrary to the public. In this work, we focus on the collective protest movement on Twitter through the hashtags #JHT_JokowiHarusTurun, #jaminanharitua, and #JHT; we have identified a network of Twitter users regarding the implementation of the Pension Plan policy. Segmentation determines the importance of our results, which are analyzed through the NVivo 12 plus qualitative tool. The spread of Twitter tweets using hashtags has increased the frequency of problems being solved; our research shows Twitter users with political backgrounds, political parties, online mass media, actors and culturalists, and the public.

Additionally, the spread of tweets across continents is quite significant. There is also a distribution pattern of hashtags through the Twitter user network. The hashtag from
#JHT_JokowiHarusTurun has a significantly dense pattern of tweet distribution, followed by the proportion of sentiment, where a high score is obtained in the moderately negative section, which covers half of the tweets wrapped in circulating hashtags. Finally, this frequency also produces tweets that focus on protests against the ratification of the JHT program policy. Ultimately, our investigations also determined that hashtags on social media platforms like Twitter would progressively result in a collective movement of users, leading to protests influencing actors and policymakers.

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