

Big Data: How Public Response to Islamic Economy in Indonesia during Pandemic?

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Abstract. The social and economic impacts caused by the COVID-19 pandemic greatly affect the level of community welfare. The government has designed and implemented various programs in the context of poverty eradication during the pandemic, including increase the role of sharia or Islamic economics. Contribution of Islamic economy can strategically beneficial for Indonesia's current and future economy. The benefits obtained by target community need to be measured as a reflection of the success of Islamic economy program and for government evaluation. Big data through social media analysis can be empowered to gain public perceptions of Islamic economy. Therefore, in this study the Twitter social media analysis approach will be used to obtain public responses regarding Islamic economy. The tweet data was collected from January 1, 2020 to June 30, 2021. The processed data is sourced from all Twitter users with tweets related to the keywords 'ekonomi syariah' or *sharia economy*, 'ekonomi digital' or *digital economy*, 'keuangan syariah' or *sharia finance*, and 'industri halal' or *halal industry*. Those data were analyzed using text mining method. The results of this study indicate that in general the public response accepts and supports Islamic economy in Indonesia. Those analysis result can be used as evaluation material and input for the government in making the next policy for accelerate economy recovery in pandemic era.

Keywords: Big data, economy recovery, Islamic economic, public response.

Abstrak. Dampak sosial dan ekonomi akibat pandemi COVID-19 sangat memengaruhi tingkat kesejahteraan masyarakat. Pemerintah telah merancang dan melaksanakan berbagai program dalam rangka pengentasan kemiskinan di masa pandemi, termasuk peningkatan peran syariah atau ekonomi Islam. Kontribusi ekonomi Islam secara strategis dapat bermanfaat bagi perekonomian Indonesia saat ini dan masa depan. Manfaat yang diperoleh masyarakat sasaran perlu diukur sebagai cerminan keberhasilan program ekonomi Islam serta sarana evaluasi pemerintah. Big data melalui analisis media sosial dapat diberdayakan untuk mendapatkan persepsi publik tentang ekonomi Islam. Oleh karena itu, dalam penelitian ini akan digunakan pendekatan analisis media sosial Twitter untuk mendapatkan tanggapan masyarakat mengenai ekonomi Islam. Data tweet dikumpulkan mulai 1 Januari 2020 hingga 30 Juni 2021. Data yang diolah bersumber dari seluruh pengguna Twitter dengan tweet terkait kata kunci 'ekonomi syariah', 'ekonomi digital', 'keuangan syariah', dan 'industri halal'. Data tersebut dianalisis menggunakan metode text mining. Hasil penelitian ini menunjukkan bahwa secara umum respon publik adalah menerima dan mendukung ekonomi Islam di Indonesia. Hasil analisis tersebut dapat digunakan sebagai bahan evaluasi dan masukan bagi pemerintah dalam mengambil kebijakan selanjutnya untuk mempercepat pemulihan ekonomi di era pandemi.

Kata kunci: Big data, ekonomi Islam, pemulihan ekonomi, respons publik.

INTRODUCTION

In the past two decades, the Islamic economy and finance have undergone rapid development both globally and nationally (Bappenas, 2018). The 2018/2019 State of the Global Islamic Economy Report reported that total global spending on Islamic foods and halal lifestyles in 2017 reached \$ 2.1 trillion and is expected to continue to grow to \$ 3 trillion by 2023 (Thomson Reuters, 2019). The main factor expected to affect this development is the growing Muslim population in the world. In 2017, the world's Muslim population reached 1.84 billion. This number is expected to continue to rise, reaching 27.5% of the world's total population by 2030. The increase in population will definitely significantly increase the demand for halal products and services. Although, pandemic is forecasted to

result in an 8% decrease in global Muslim spending in 2020 for Islamic economy sectors (Dinar Standard, 2021).

Indonesia's Islamic economy is at a critical stage because it is in a situation of global economic uncertainty and competes with the regional economies of its competitors. The role and contribution of the Islamic economy to the national economy is not yet significant, because it is marked as an important pillar to help Indonesia cope with a world economy (VUCA) that has become more fragile, uncertain, complex and ambiguous. However, even the smallest contribution from the Islamic economy cannot explain the potential of the Islamic economy, which has strategic benefits for the current and future Indonesian economy.

As the country with the largest Muslim population in the world, Indonesia has failed to play its best role in meeting this demand (Bappenas, 2018). In the Global Islamic Economic Index 2018/2019, Indonesia ranks 10th in the world as a producer of halal products (Thomson Reuters, 2019). Although Indonesia's export performance in Muslim fashion products, halal food and halal tourism has continued to grow year by year, as a whole, Indonesia's net imports of halal products and services are relatively large, resulting in a current account deficit.

The social and economic impacts caused by the COVID-19 pandemic greatly affect the level of community welfare. This is due to the limitation of economic activity which at a macro level reduces economic growth and causes many people to lose their jobs, thereby potentially increasing the number of poor people. The government has designed and implemented various programs in the context of poverty eradication during the pandemic, including increase the role of sharia or Islamic economics.

Every program including sharia economy requires an evaluation of the level of acceptance by the public. According to Dunn (1999) there are three important functions of conducting an evaluation of government policies, namely (1) Providing valid and reliable information about policy performance to reveal how far certain goals and targets have been achieved, (2) Contributing to clarification and criticism of values that underlie the selection of goals and targets, and (3) contribute to the application of other policy analysis methods, including problem formulation and recommendations. Based on this statement, policy evaluation is the only way to prove the success or failure of implementing a government program, especially about Islamic economy.

The evaluation system used by the Indonesian government is still conventional, in the form of tiered reports from the smallest units in the form of villages, sub-districts, districts, provinces, to the central government. Collecting evaluations conventionally requires a long time and process related to the vast territory of Indonesia and the large population of Indonesia, especially with the many limitations during the current pandemic. A study from the United Nations Global Pulse (UNGP) (2015) in El Salvador suggests that social media monitoring can be used to understand and provide feedback on policy reforms. Basu et al. (2017) in his research suggests that social media can be used as an evaluation because it can cover a wide area, the volume of data taken is large, and the time is fast.

In Indonesia, online data sources from social media continue to grow as internet users increase. According to the Global Digital Statistics "Digital 2021: Indonesia" from Data Reportal (2021), there were 202.6 million internet users in Indonesia. Then, 63.6% of internet users aged 16 to 64 were active Twitter users. The large percentage of active Twitter users can be used as an online data source to take public responses and opinions related to Islamic economy. Therefore, this study aims to analyze Twitter data to determine public responses and opinions as an evaluation tool for sharia economy programs in Indonesia during the pandemic. Through this research, it is hoped that it can support the optimization of the implementation of government policies to reduce poverty and protect the welfare of the community in order to accelerate the national economic recovery during the pandemic.

LITERATURE REVIEW

Response has a narrow meaning, namely a reply or response. Soekanto (1993) states that the response is a behavior that is a consequence of previous behavior as a response or answer to a particular problem. According to Azwar (1988), the form of a person's response can be in the form of good or bad attitudes, and positive or negative responses. According to the Big Indonesian Dictionary (KBBI), public means many people or general. Based on this theory, what is meant by public response in this study is a response or reaction that is the result of positive and negative stimuli along with criticism and expectations conveyed by the general public regarding a matter.

Islamic economics means an economic system based on the Islamic principles (Shariah). It covers all existing economic sectors, both financial and real sectors. Islamic economic system must also provide benefits (maslahah) that is equitable and sustainable for each element in the economy. Chapra (1996), concluded that the Islamic economic system prioritizes social and economic justice, and the balance between material and spiritual needs. This is the definition of a universal Islamic economic system and is consistent with the direction of national development, the foundation of Pancasila, and strategy sustainable development that has been adopted, such as sustainable development goals (SDGs).

The main characteristics of Islamic economics, other than being derived from the Quran and Sunnah, is free from the elements of usury, gharar, maysir, and components that are forbidden in Islam. In other words, Islamic economics is halal economy according to the syara'. With this comprehensive definition, coverage of the Islamic economic development roadmap covers all sectors of the economy categorized as Shariah compliant or halal and it is in accordance with maqashid syariah.

Related research is a journal by Basu et al.(2017). The research contains analysis of pre-post policies and challenges in collecting public response data. With the existence of social media, it is possible to evaluate the success of a policy more easily. This journal proposes using Twitter data to understand sentiment and reactions to public policy. Twitter data on odd-even transport policy in Delhi is collected and analyzed. The results of the study show that Delhi residents mostly agree with the policy. Such research can also help identify policy problems so that corrective action can be taken by the government. In line with this research is to obtain a public response related to sharia economy things in Indonesia.

Other related research is a journal by United Nations Global Pulse (UNGP) (2015). The United Nations Global Pulse are working together to analyze public discontent with policy reforms for national subsidies to propane gas in El Salvador. The results of the research on the Twitter data help reveal public opinion and the unexpected impact of fuel reform policies. The results of this opinion can complement household survey data if they are not available. In line with this research, which seeks to obtain public perceptions regarding sharia economy development through big data analysis of social media to complement direct survey data which is difficult to do during the current pandemic.

METHOD

This study uses a qualitative method, namely text mining. Text mining is defined as a process of extracting information where a user interacts with a set of documents using analytical tools which are components in data mining (Feldman dan Dagan, 1995). Twitter data about public responses regarding various sharia-economy keyword in Indonesia during the COVID-19 pandemic are used in this study. Twitter data used is tweet in Indonesian language. The processed data is sourced from all Twitter users with tweets related to the keywords 'ekonomi syariah' or *sharia economy*, 'ekonomi digital' or *digital economy*, 'keuangan syariah' or *sharia finance*, and 'industri halal' or *halal industry*. Data retrieval is carried out by the scrapping method using the python application and the 'twint' scraping tool. The tweet data was collected from January 1, 2020 to June 30, 2021.

The next stage after data collection is data filtering and text pre-processing using python. Twitter data usually has a lot of noise so filtering and text pre-processing needs to be done (Go et al., 2009). Filtering is carried out on the scrapping data to obtain data that is truly related to the three keywords. Preprocessing text is done to correct data that is not suitable and not ready for analysis, through case-folding, URL removal, punctuation removal, stop words removal, and so on. Ready-to-analyze data for each keyword were 12,899 tweets for sharia economy, 9,605 tweets for digital economy, 6,342 tweets for sharia finance, and 3,452 tweets for halal industry.

Sentiment analysis or opinion mining is a research branch of text mining that aims to determine public perception or objectivity towards a topic, event, or problem. Lexicon-based approach is a sentiment analysis technique that involves calculating the polarity of sentiment by using the semantic orientation of words or sentences in a text or document (Collomb et al., 2014). This research analytical method uses sentiment analysis and descriptive analysis with R in the form of line chart visualization for descriptive tweet data as a whole, pie chart and line chart per keyword for visualization of sentiment analysis, and link words for visualization of the hope for government contained in the tweet data. The steps taken in conducting analysis and visualization are as follows.

1. Sentiment data classification uses the manual weighting method for each word based on the lexicon dictionary (Shah, 2016) so that negative, neutral, and positive sentiments can be identified. If the result is weighted less than one (<0) then the tweet is classified as negative sentiment, if it is equal to zero (0) then it is classified as neutral, and if more than one (>0) then the tweet is classified as positive sentiment.
2. After classifying the sentiment data for each tweet, it is followed by visualization using pie chart and line charts/data trends from each government program so that it can be seen how the sentiment development of each program is.
3. Tokenize and merge words in tweets. Tokenization is done to split 2 words, and then the second to third words are combined again. The first words that are still separated are selected for words that have a special meaning of hope. So that the data can be classified which means expectations of government programs in per keyword.
4. The last step is to visualize the sentence of hope with a link word.

RESULTS AND DISCUSSION

When a government program is launched to the public, it will get a response from the public itself, will the public respond in an accepting, normal, or even rejecting manner. As stated by Primastuti (2015), namely that the existence of different interests in the public will have an impact on the public's response to a government program. To see the public's response to the program, a sentiment analysis was formed for the three keywords about digital and Islamic economy during the pandemic, as summarized in Table 1.

Table 1 is a table of public sentiment or opinion from the three keywords about digital and sharia economy in Indonesia for the period January 2020 to May 2021. Public opinion on those keywords is dominated by neutral sentiment and positive sentiment from public. Neutral sentiment is dominated by activity descriptions from photos or only in the form of hashtags for each program or better known as status updates by the public when participating in one of these programs. Positive sentiment is dominated by words of support and usefulness. The following is a sentiment analysis of each keyword.

Table 1 Percentage of each keyword in Indonesia during pandemic (January 2020 – May 2021)

Program (1)	Sentiment (2)	Amount (3)	Percentage (4)
<i>Ekonomi Syariah</i> (Sharia Economy)	Negative	1,600	12.40
	Neutral	5,162	40.02
	Positive	6,137	47.58
<i>Ekonomi Digital</i> (Digital Economy)	Negative	633	6.59
	Neutral	3,166	32.96
	Positive	5,806	60.45
<i>Keuangan Syariah</i> (Sharia Finance)	Negative	532	8.39
	Neutral	2,103	33.16
	Positive	3,707	58.45
<i>Industri Halal</i> (Halal Industry)	Negative	206	5.97
	Neutral	1,231	35.66
	Positive	2,015	68.37

Source: Twitter, processed.

'*Ekonomi Syariah*' or Sharia Economy

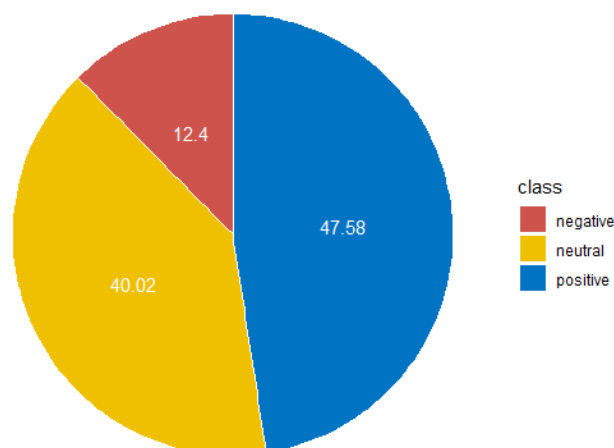


Figure 1 Percentage of public opinion regarding sharia economy for Jan 2020 – June 2021

Most of the public accept sharia economy, as shown in Figure 1, the percentage of public opinion about this keyword is dominated by positive and neutral opinions. The percentages of positive and neutral public opinion are 47.58% and 40.02%. However, there are 12.40% of public opinion that criticizes or disagrees with this keyword. The large number of positive public opinion shows that sharia economy is feasible to be continued by the government.

The following is a trend of sharia economy sentiment. Based on Figure 2, it can be seen that during the time span between Jan 2020 to June 2021, the dominance of tweets with positive opinions and neutral opinions are much greater than tweets with negative opinions. Gap between positive and negative opinions is so far.

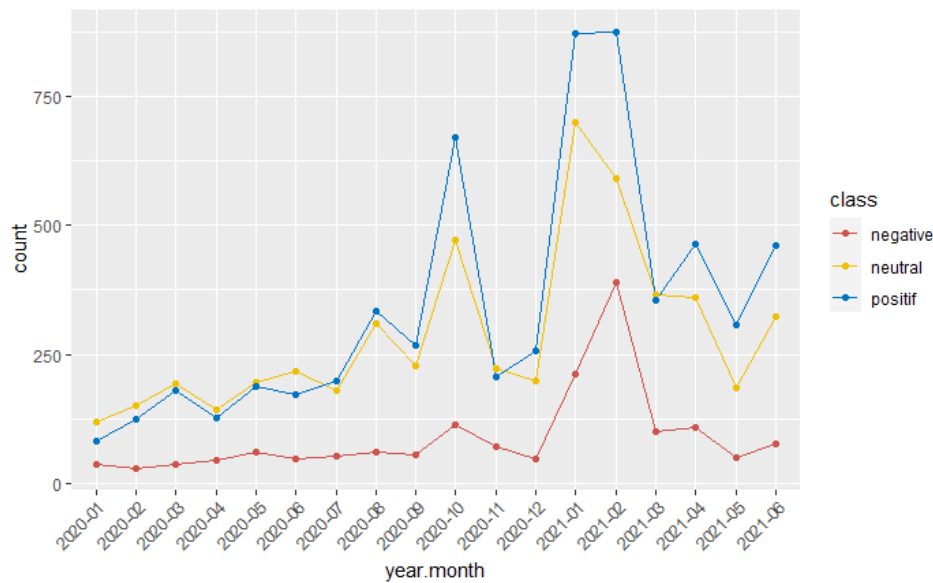


Figure 2 Trends in public opinion regarding sharia economy for Jan 2020 – June 2021



Figure 3 Wordcloud of sharia economy

Figure 3 is a wordcloud of public tweets against sharia economy. Wordcloud is a visualization in the form of words that often appear in every public opinion about the sharia economy on Twitter. Figure 3 shows that public opinion about this program is very diverse for each opinion. Neutral opinions are dominated by words in the form of descriptions of activities that are felt or carried out by the community and positive opinions are dominated by the word’s “development”, “hope”, “good”, and others. The following is an example of a few tweets for each opinion. An example of a tweet with a neutral opinion sentiment is “To note, the launch of the GNWU and the inauguration of the sharia economy brand were attended virtually by ministers and heads of state institutions, governors of waqf stakeholders, to corporations and waqf providers.” (translated).

Positive opinion was dominated by tweets from the public who felt the assistance or from program implementers who had implemented the program. An example of a positive tweet is “Halal quality, both for the domestic consumption market and to serve the needs of the world's halal products, is part

of the realization of the grand strategy of the master plan for the development of the Indonesian sharia economy, thank God, we are making it concrete one by one.” (*translated*).

Furthermore, the following are examples of tweets with negative opinions on sharia economy, namely “The sharia economy that they are hyping about is actually a very bad practice of usury. Economic tools that claim to be sharia, in fact, they do not understand any sharia, even if they do understand, they will only seek to justify their usury practice.” and “the corruption champion party becomes the builder of sharia economy, what the!” (*translated*). Based on the example of the negative tweet, it can be seen that negative opinion indicates a problem in the form of public criticism of sharia economy. The government should pay more attention to the shortcomings that exist in the implementation of sharia economy, especially in preventing corruption and make sure procedure which free from riba.

In addition to negative tweets in the form of criticism, the public also gave hope for sharia economy in the future. Figure 4 is a visualization of some of the expectations that are often issued by the public for sharia economy in the form of linkword visualization.

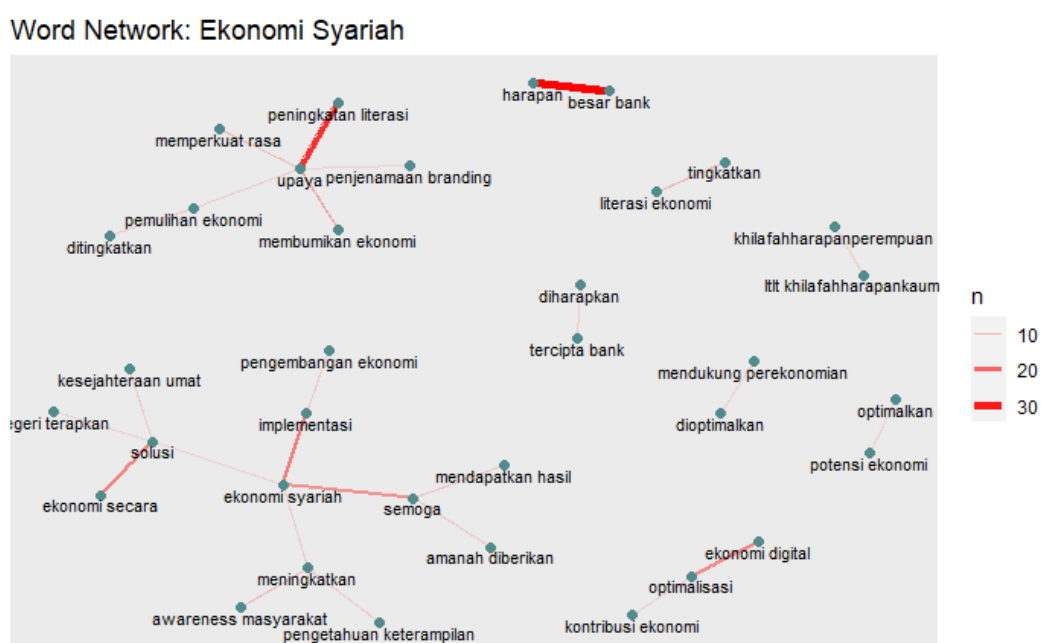


Figure 4 Sharia economy linkword

Based on Figure 4, the expectation that often comes out of public tweets regarding sharia economy are to increase the role of Islamic bank and increase economic literacy. The public also gave input to sharia economy, government need to improve the society awareness for realize the impact of sharia economy. Public hope that sharia economy can be optimized to develop potential economy, bring back social welfare, and at the end can accelerate economic recovery. Public also giving an opinion that the development of sharia economy needs to be balanced with economy digital. So, the next keyword is about digital economy.

‘Ekonomi Digital or Digital Economy

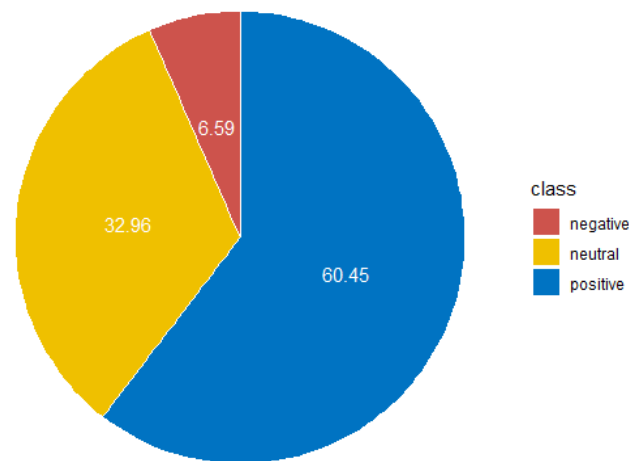


Figure 5 Percentage of public opinion regarding digital economy for Jan 2020 – June 2021

Figure 5 shows the percentage of public opinion about digital economy. Based on the picture, opinions are dominated by tweets with positive and neutral opinions, which are 60.45% and 32.96%. It can be concluded that most of the public accept and support digital economy. The amount of positive public opinion shows that digital economy is feasible to be continued by the government. But there are still 6.59% of public opinion who criticize or disagree with this program.

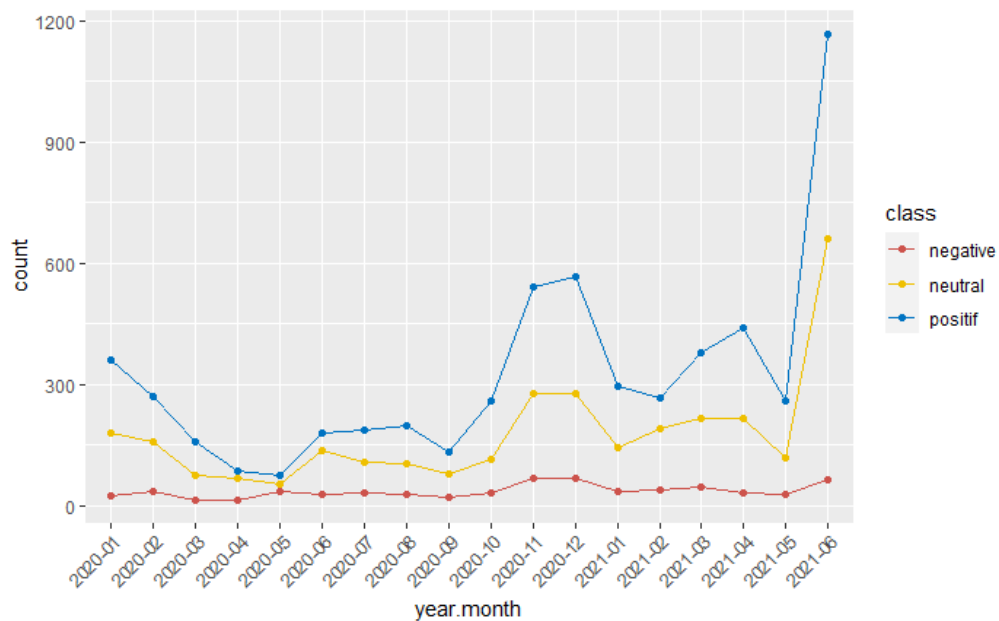


Figure 6 Trends in public opinion regarding digital economy for Jan 2020 – June 2021

Figure 6 shows that the sentiment trend of digital economy from early 2020 to June 2021 shows the dominance of tweets with positive opinions and neutral opinions, while negative opinions are below them. This is in accordance with Figure 5 regarding the percentage of sentiment towards digital economy which is dominated by positive and neutral sentiment.

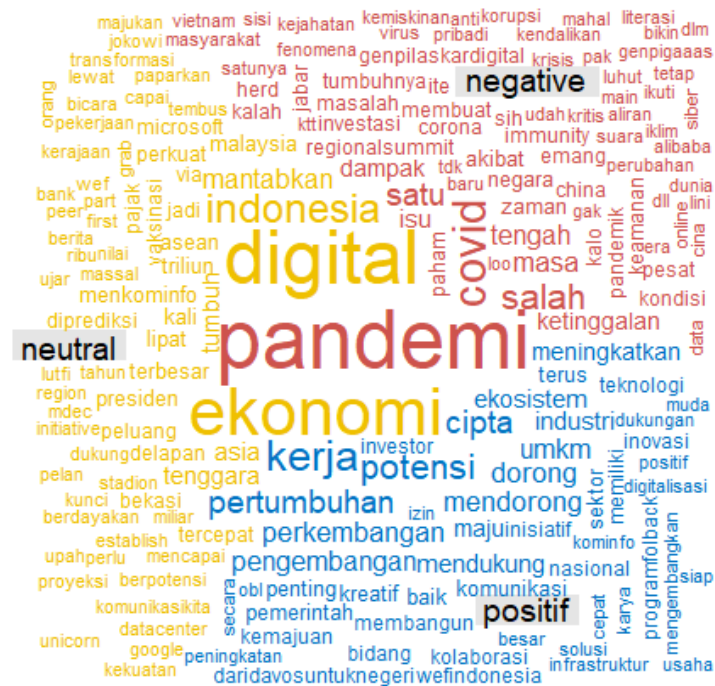


Figure 7 Wordcloud of digital economy

Figure 7 is a wordcloud of the digital economy which shows that public opinion about the digital economy is very diverse. Neutral opinion is dominated by descriptions of activities and some public expectations. Negative opinions are highlighted with the words pandemic which show that digital economy need to be optimized enough to reduce the impact of poverty during the pandemic. The following is an example of a few tweets for each opinion. An example of a tweet with a neutral opinion sentiment is “China Asean Expo opens the way for cooperation in the digital economy sector.” (*translated*). Positive opinion was dominated by tweets from the public who felt the assistance or from program implementers who had implemented the program. An example of a positive tweet is “The digital economy is not only good for internal SMEs but also overall economic growth because the flow of goods outside the city increases, the logistics and industrial sectors also have a cool positive impact.” (*translated*)

Furthermore, the following are examples of tweets with negative opinions against digital economy, namely “Not much has been revealed about the negative impact of the digital economy's carbon footprint, modern technology, tablets, smartphones, televisions, to electric cars, depending on rare materials from the earth.” and “The digital economy in Indonesia has many challenges, internet penetration is still lagging behind other ASEAN countries, besides that, cyber security is still poor. Imported products are flooding the average internet speed is low and only 1 million SMEs out of millions go digital.” (*translated*). Based on the example of the negative tweet, it can be seen that the negative opinion indicates a problem in the form of public criticism of digital economy. Government must optimize internet using and empower MSME’s to go digital. Government also needs to concern about bad impact of carbon pollution from digital product, we can start to innovate the development of sustainable product.

Word Network: Ekonomi Digital

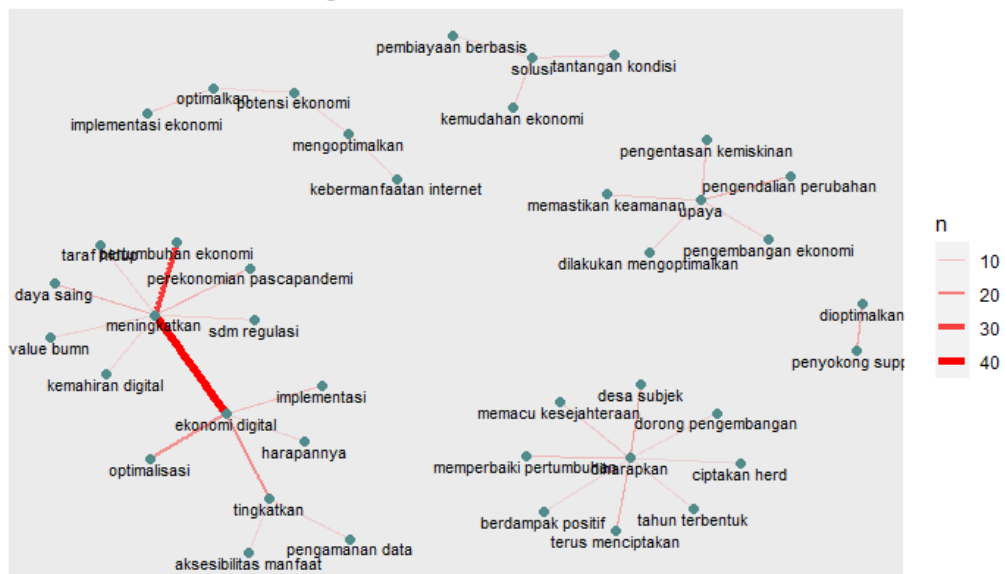


Figure 8 Digital economy linkword

Figure 8 is a visualization of some of the expectations that are often issued by the public for digital economy in the form of linkword visualization. Based on Figure 8, the expectation that often comes out of public tweets related to digital economy is that it can be a solution for fixing economy growth, optimizing demand and supply, and also increasing welfare. Public also provided input on this program, government should optimize digital economy to maintain manpower quality, data security, internet benefits, and economic development. All the optimization of digital economy can change the pandemic situation to accelerate economic recovery.

‘Keuangan Syariah’ or Sharia Financial

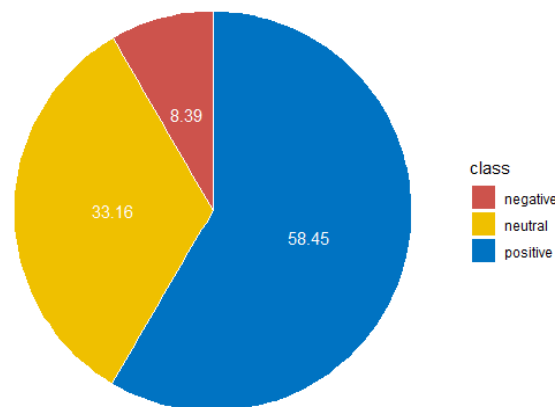


Figure 9 Percentage of public opinion regarding sharia financial for Jan 2020 – June 2021

Sharia financial is the key factor for the success of Islamic economy. Most of the public accepted sharia financial, as shown in Figure 9, the percentage of public opinion about this program is dominated by positive and neutral opinions. The percentages of positive and neutral public opinion are 58.45% and 33.16%. However, there are 8.39% of public opinion that criticizes or disagrees with sharia financial. The large number of positive public opinion shows that sharia financial is feasible to be continued by the government.

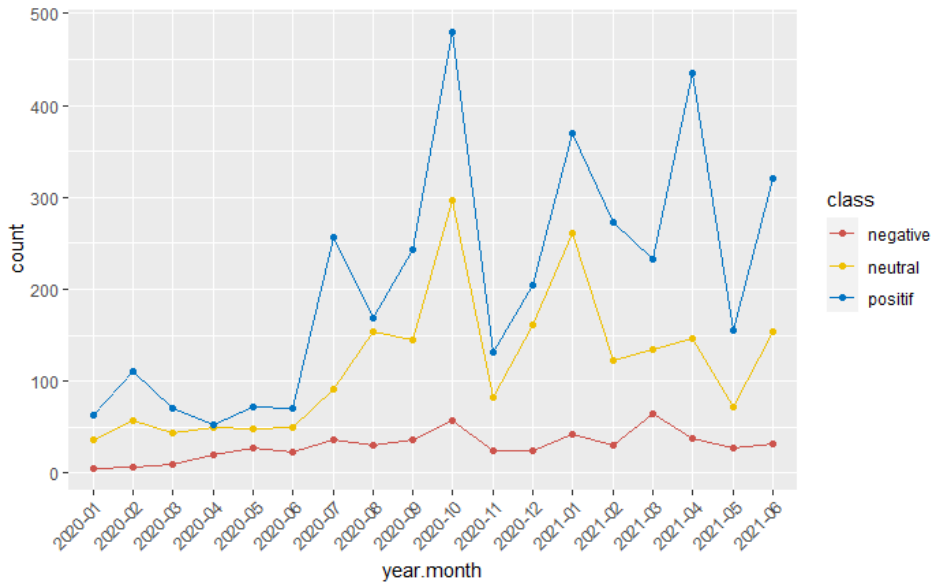


Figure 10 Trends in public opinion regarding sharia financial for Jan 2020 – June 2021

The following above is the trend of the sentiment of sharia financial. Based on Figure 10, it can be seen that during the time span between Jan 2020 to June 2021, the dominance of tweets with positive and neutral opinions is much greater than tweets with negative opinions.



Figure 11 Wordcloud of sharia financial

Figure 11 is a wordcloud of public tweets against sharia financial. Wordcloud is a visualization in the form of words that often appear in every public opinion on sharia financial on Twitter. Figure 11 shows that public opinion about this program is very diverse for each opinion. Neutral opinions are dominated by words in the form of descriptions of activities that are felt or carried out by the community and positive opinions are dominated by words that show the usefulness of assistance. Negative opinion dominated by the word ‘pandemic’, ‘crisis’, and ‘riba’ which shows public concern about sharia financial needs to free from riba and needs to be optimized to overcome crisis on pandemic era. The following is an example of a few tweets for each opinion. An example of a tweet with a neutral opinion sentiment is “take part in the launch of the national cash waqf movement and the inauguration of the sharia economy brand by the president of the republic of Indonesia, which was

held by the national committee for sharia economics and finance, KNEks, ministry of finance and bi, on Monday.” (translated).

Positive opinion was dominated by tweets from the public who felt the assistance. An example of a positive tweet is “Minister of Finance Sri Mulyani Indrawati explained other developments besides improving performance, namely the growth of Islamic banking which also supported Indonesia's Islamic financial assets during the pandemic. Well, I hope that national Islamic banking will be more advanced in the year.” (translated)

Furthermore, the following is an example of a tweet with a negative opinion on sharia financial, namely “Sharia bank Aceh, member of the DPRA Asrizal Asnawi highlighted the services of sharia banks operating in Aceh this pan politician said that ATM cases were often empty and often failed to transfer could bring a bad image to the qanun of Islamic financial institutions.” and “Corruption of sharia financial services cooperative funds, defendant undergoes first trial.” (translated). Based on the example of the negative tweet, government should pay more attention to improve the quality of sharia financial services. Government also needs to concern about transparency and corruption prevention efforts.

In addition to negative tweets in the form of criticism, the public also gave hope for the BLT program in the future. Figure 12 is a visualization of some of the expectations that are often issued by public for sharia financial in the form of linkword visualization.

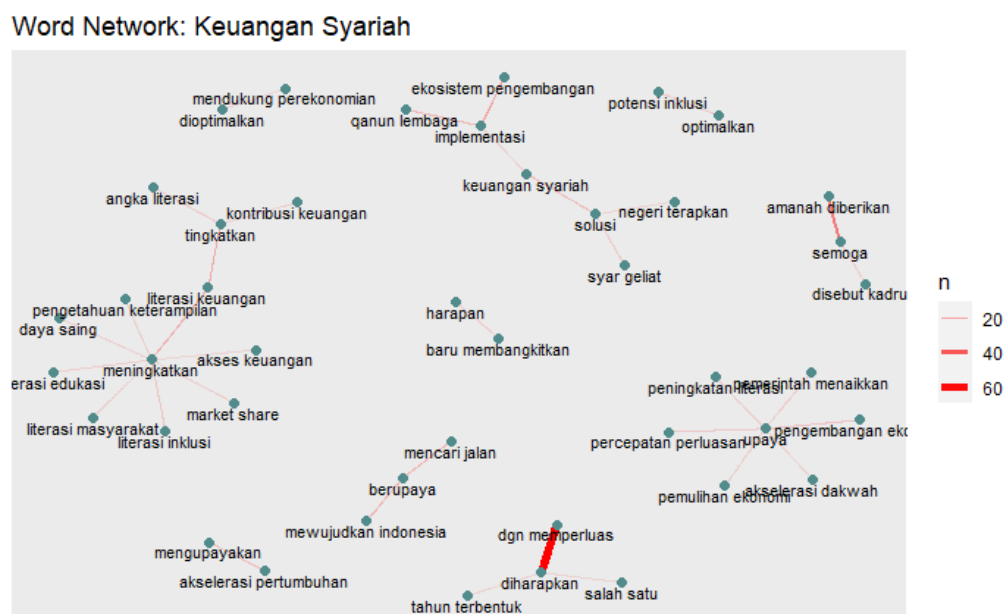


Figure 12 Sharia financial linkword

Based on Figure 12, the expectation that often comes out of public tweets regarding the sharia financial is becoming one of effort to expand economic growth acceleration. The community hopes that sharia financial can be optimized for improving potential inclusions, supporting economic development, contributing for market share, and empowering competitiveness of Islamic economy as the foundation of Indonesia's economic revival. The implementation of sharia financial is expected to be able to support efforts to recover the economy during the pandemic.

‘Industri Halal’ or Halal Industry

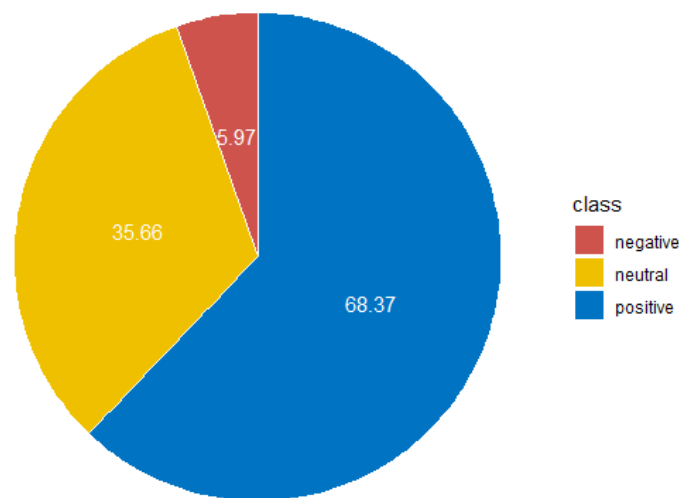


Figure 13 Percentage of public opinion regarding halal Industry for Jan 2020 – June 2021

Strengthening halal industry needs to be done for maintain the empowerment of Islamic economy. Figure 13 shows percentage of public opinion on halal industry. Based on the picture, opinions are dominated by tweets with positive and neutral opinions, which are 68.37% and 35.66%. It can be concluded that most of the public accept and support halal industry. The amount of positive public opinion shows that halal industry is feasible to be continued by the government. However, there are still 5.97% who criticize or disagree with halal industry.

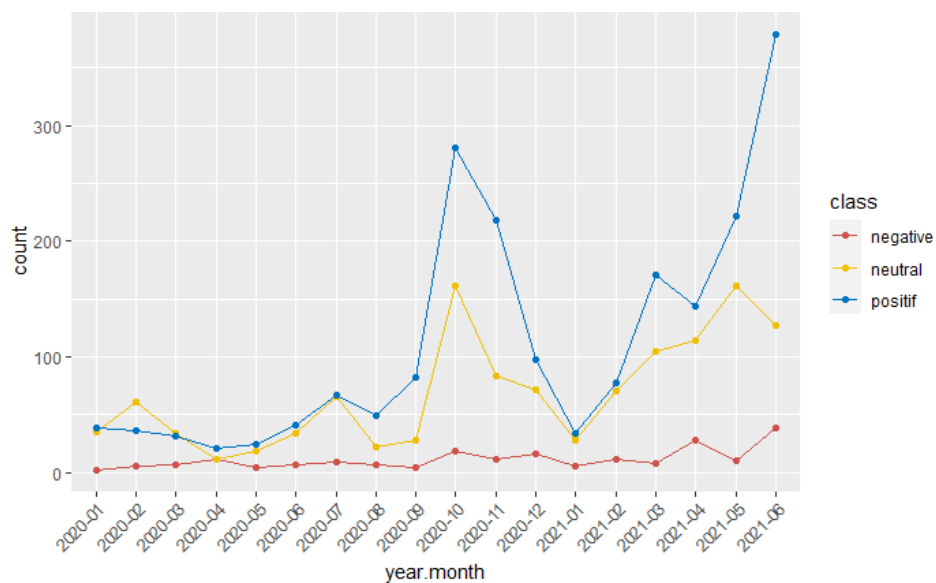


Figure 14 Trends in public opinion regarding halal industry for Jan 2020 – June 2021

Figure 14 shows that the trend of sentiment for halal industry from early 2020 to June 2021 shows the dominance of tweets with positive opinions and neutral opinions, while negative opinions are below them. This is in accordance with Figure 13 regarding the percentage of sentiment towards halal industry which is dominated by positive and neutral sentiment.



Figure 15 Wordcloud of halal industry

Figure 15 is a wordcloud of halal industry which shows that public opinion about halal industry is very diverse. Neutral opinion is dominated by descriptions of activities and some public expectations. The following is an example of a few tweets for each opinion. An example of a tweet with a neutral opinion sentiment is “Khofifah attended a workshop with the Financial Services Authority (OJK) with the theme East Java as the basis for the Halal Industry in Surabaya” (*translated*). Positive opinion was dominated by tweets from the public who felt the assistance or from program implementers who had implemented the program. An example of a positive tweet is “Create a collaborative ecosystem that supports the advancement of the halal industry through the concept of educate collaborated build so that the economic benefits and social impacts can contribute to the progress of the Indonesian nation. We actively collaborate with other institutions to realize this shared vision.” (*translated*)

Furthermore, the following is an example of a tweet with a negative opinion on halal industry, namely “Sri Mulyani doesn't want bad management and dishonesty to actually become an obstacle to the development of the halal industry.” and “Tbh I fail to understand the urgency of this halal industry, is what we have been consuming so far not halal or what is currently circulating isn't halal if it's just a matter of label who actually benefits.” (*translated*). Based on the example of negative tweet, government should pay more attention to overcome bad management and dishonesty of industry halal system for improving public trust. Government needs to concern about halal industry literacy to make public aware about the importance of industrial halal ecosystem.

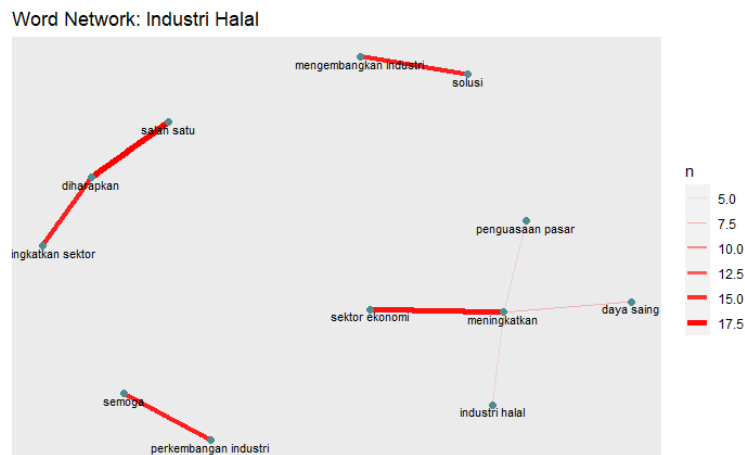


Figure 16 Halal industry linkword

Figure 16 is a visualization of some of the expectations that are often issued by public for halal industry in the form of linkword visualization. Based on Figure 16, the expectation that often comes out of public tweets related to the halal industry is to support industrial development. The public hopes that halal industry can be the one for empowering economic sector through market control and strengthening competitiveness, so it can accelerate economic recovery.

CONCLUSION

Based on the results of the analysis and discussion of this study, conclusions that can be drawn from this research are as follows. In general, public's response to four Islamic economy keywords in Indonesia during the pandemic period (January 2020 to June 2021) was to accept and support the program, and some were neutral or neutral. There is a small part of the public who do not accept or criticize it. Number of positive responses shows that in general the Islamic economy is successful and feasible to continue in order to overcome the impact of pandemic and accelerate economic recovery. This can be seen in the public responses to each keyword below.

Sharia economy keywords received positive response of 47.5%, 40.02% of a neutral response, and 12.40% of a negative response. Government needs to improve the society awareness for realize the impact of sharia economy. Public hope that sharia economy can be optimized to develop potential economy, bring back social welfare, and at the end can accelerate economic recovery. Public also giving an opinion that the development of sharia economy needs to be balanced with economy digital.

Digital economy had 60.45% positive responses and 33.16% neutral responses, while the remaining 6.59% were negative responses. Based on the negative response to digital economy, government must optimize internet using and empower MSME's to go digital, also needs to concern about bad impact of carbon pollution from digital product. Combine with Islamic economy, digital economy is expected to be able to become a solution for fixing economy growth, optimizing demand and supply, and also increasing welfare.

Sharia financial received positive sentiment of 58.45%, neutral sentiment of 33.16%, and negative sentiment of 8.39%. Based on negative tweets about sharia financial, government should pay more attention to improve the quality of sharia financial services. The community hopes that sharia financial can be optimized for improving potential inclusions, supporting economic development, contributing for market share, and empowering competitiveness of Islamic economy as the foundation of Indonesia's economic revival.

Halal industry got the largest positive sentiment percentage among the others keyword. Halal industry received positive sentiment of 68.37%, neutral at 35.66%, and only 5.97% was negative sentiment. The public hopes that halal industry can support industrial economy. Halal industry was expected to be the one for empowering economic sector through market control and strengthening competitiveness, so it can accelerate economic recovery.

Recommendation

Based on the conclusions above, the government needs to pay more attention to the shortcomings of program or keyword based on negative sentiments from the public. This can increase public trust in the program and can minimize problems in the field during program implementation. Government can use social media with the text mining method as an alternative for evaluating government programs regarding Islamic economy. In the future, it is necessary to create an application or dashboard system to display the evaluation of government programs in real-time through social media analysis. The system is expected to speed up the evaluation process so that further policies can be carried out in an appropriate and responsive manner.

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