TWITTER AS A MIRROR: EXAMINING PUBLIC SENTIMENTS TOWARDS FRUGAL LIVING FROM AN ISLAMIC ETHICAL PERSPECTIVE

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Abstract

Nowadays, human needs are increasingly complex. This condition is one of the reasons why people are required to be wise in spending their assets. Frugality is a lifestyle that can be a solution to ensure future economic benefits. This frugal lifestyle is known by urban communities as frugal living. This lifestyle has become a trending topic on social media twitter because it reaps the pros and cons of one's social life. Against this phenomenon, researchers will analyze the sentiment of Indonesian society towards frugal living and study it using the perspective of Islamic law. This research is a qualitative research with a descriptive approach using statistical data of twitter users who write tweets related to frugal living in Indonesia. Twitter users' tweets can be in the form of sentences, photos and videos. In this study, the data used by researchers is only tweets in the form of sentences. This study uses sentiment analysis to determine the sentiment of Twitter users related to frugal living. The tweet data related to frugal living was obtained as many as 4753 with restrictions on Indonesian language from June 1, 2023 to October 23, 2023. Based on the research results, it was found that the most dominant sentiment was neutral with a percentage of 56% or a total of 2655 tweets. The positive sentiment is in second place at 27% or 1296 tweets and the negative sentiment is 17% or 802 tweets. Although the positive sentiment is not dominant, frugal living has a good impact on the life of a Muslim. This lifestyle is in line with religious advice to live simply and moderately in order to prosper and be free from extravagance.
Keywords: *frugal living; halal lifestyle; halal industry; sentiment analysis; islamic ethics.*

INTRODUCTION

The development of information technology has triggered the emergence of various lifestyles in society. One of them is a consumptive lifestyle or often referred to as a hedonic style (Um et al., 2022). Consumptive lifestyles include pleasure, enjoyment, freedom, entertainment, involvement, acquisition of new product information, and escape from monotonous life (Muawaliyah & Saifuddin, 2023). The purpose of a consumptive lifestyle is to cause joy and happiness for personal satisfaction. (Mano & Elliott, 1997) When price is used as an attribute of a product, it is assumed that paying the highest price and being able to buy at that price creates a sense of showing off or pleasure which can lead to a consumptive attitude becoming a lifestyle with economic benefits (Kavak et al., 2010). One of the positive impacts of the emergence of a person's lifestyle provides motivation to work more diligently and disciplined, because a person needs income to support his needs and desires. The better a person does a job, the greater the pay or salary that will be received and the greater the interest in purchasing power he has (Athief, 2019). In Khaniwale's research (2015) states that there are four factors that trigger a person to have a consumptive

lifestyle. First, culture which is an aspect of the life of a group of people from a particular society, place and time. Culture covers all aspects of life, including thoughts, behavior, practices, technology, rituals, norms, language, beliefs, ethics, and lifestyles in a community group. Second, the existence of social roles which include family roles and social status. Third, the existence of personal factors including age, education, income profession, personality, and lifestyle. Fourth, psychology includes perception, motivation, learning, beliefs, and attitudes (Azhari et al., 2021).

The biggest factor that causes someone to have a consumptive lifestyle is the convenience in a transaction, one of which is a transaction using mobile banking. Mobile banking provides benefits such as time optimization, real-time information, fast connectivity, convenience, and high interactivity for users who have bank accounts in digital form (Febriandika et al., 2023).

Implementing a frugal lifestyle in a pervasive consumptive culture is not easy, it requires discipline and consistency. A frugal lifestyle is a lifestyle that seeks to create an attractive value proposition by focusing only on core functions and by minimizing the use of

material and financial resources. Frugal lifestyle refers to cost reduction, concentration on functional value, and optimization of performance levels. (Albert, 2019). Nash (1995) reveals that regarding a frugal lifestyle, some people think that a frugal attitude tends to look cheap, miserly, disappears generosity compared to being moderate, frugal, cost-effective, and has the satisfaction of material sufficiency). According to (Todd & Lawson, 2003) many people consider a frugal lifestyle as an undesirable characteristic because it conflicts with societal values related to power, stimulation, and hedonism and desires to acquire and possess (Bove et al., 2009). Alam et al. (2023) state that solutions in managing finances to conserve biodiversity - tools, techniques, tactics, and procedures to make money by minimizing future spending, providing more conservation and more efficient direct spending can be incorporated into it. Consumptive behavior is a person's attitude in buying and using goods without prioritizing existing needs but only to fulfill desires without careful consideration (Muawaliyah & Saifuddin, 2023).

According to Akdağ, the reason a person engages in consumptive behavior is because of togetherness, seeking inspiration, relaxing, getting new challenges and creating value (Akdağ & Demİr, 2021). Lifestyle among Muslims is consuming goods and services that are related to religious products or related to large-scale religious affairs, which is referred to as the halal lifestyle (Pribadi & Sila, 2023). The halal lifestyle has a tendency for Muslims to consume halal products, either for personal religious reasons, or for certain reasons. Inaya Rakhmani explains the concept of 'halal consumerism' as a socio-economic order that continues to encourage an increase in the purchase of goods and services with a fatwa (Pribadi & Sila, 2023). In social media life, what is faced is not something real but a lot of falsehood. Currently, some people build their identity through social media. This identity is considered a form of social value determined by the culture of a group of people and even broader values, and then associated with a certain characteristic that can be used as a means of distinguishing individuals from one another. With this identity, people need to brand themselves as well as possible in order to please themselves and others (Kamilah & Sari, 2020). Referring to (Tiwari et al 2016) "frugal

innovation creates an appeal to the value proposition by focusing on core functions which then leads to an attitude of minimizing the use of material and financial resources. Substantially reduces the cost of use or usability while meeting or even exceeding the specified quality standards (Albert, 2019). Frugal Living raises various pro and con opinions in society because it is considered a lifestyle that is too frugal by spending as little money as possible. That is why some people think that frugal living is a stingy attitude. But in reality frugal living leads to having a frugal and balanced lifestyle attitude.

In general, people can realize that a consumptive lifestyle is unacceptable both from the aspect of social relations and religious aspects, especially Islam. This is explained in the word of Allah in Surah Al-Isra (15) verse 2, namely that people who spend money are brothers of Satan and Satan is disbelieving in his Lord. In consumption behavior must be able to balance the life of the world and the hereafter in order to get the pleasure of Allah SWT because all that is produced and consumed is intended for greater benefit (al-maslahat al-ummat), not solely for the benefit of individuals and families. Islam regulates its people to set aside their wealth for infaq and alms after meeting their primary needs. A wealth of property in Islam is a mandate from Allah that must be utilized fairly. The property is not only a means of consumption but also a means of social activities that have aspects of worship or charity (Rito & Azzahra, 2018). The development of an increasingly advanced era has a major impact on the lifestyle of the Muslim community and the average consumer using Muslim clothing among the Indonesian population is related to the trend of Muslim fashion and the popularity of the hijab. Track the current popular phenomenon. Fashion rule Gen Z which is known as the same as Gen Z. The diversity of Muslim clothing makes consumers interested in modifying their Muslim clothing and following current trends (Hakim et al., 2023).

In living a lifestyle in consumption, Islam requires a Muslim to consume sufficient needs and not forget to set aside his wealth for zakat. Zakat has been explained in Surah At-Taubah verse 103 that zakat is intended to clean their property because the property obtained is partly the right of others as well. Payment of zakat is mandatory for

every Muslim whose wealth has reached the nisab (Ashfahany et al., 2023). Social media is one of the communication media that currently exists in the community such as Facebook, Instagram, and Twitter. Basically, the use of social media is a form of factual compilation of events configured into a discourse that has a meaning. Social media becomes a communication channel in delivering messages to reach a wider community (Prayudi & Nasution, 2020). On social media, information and activities of public figures are highly anticipated by social media users. Not only public figures, now companies need social media as a promotional tool (Kamilah & Sari, 2020). With the rapid development of social media, people are increasingly following the trends in social media. Social media, which originally had the aim of making a wide range of friends, is now being used as a platform for self-existence. T

Twitter is one of the various other social media categorized as an alternative media information network consisting of 280-character messages commonly called tweets. Twitter has the advantage that the tweet can be read and reached by the wider community around the world, by using the feature of providing hashtags (#) by quoting words that everyone feels can be found (Zukhrufillah, 2018).

METHOD

This research is a qualitative research with a descriptive approach using statistical data of twitter users who write tweets related to frugal living in Indonesia. Twitter user tweets can be in the form of sentences, photos and videos. In this study, the data used by researchers is only tweets in the form of sentences. This research uses sentiment analysis to determine the sentiment of Twitter users related to frugal living. Data collection is obtained through the scraping method using a script on Google Colabs. Scrapping is the process of retrieving data from a target which can be a website. (Jain et al., 2019). Google Colabs is one of Google Research's python-language and cloud-based products that can be accessed for free (Tock, 2020). The designed script is useful to extract tweets that discuss frugal living with restrictions on Indonesian language from June 1, 2023 to October 23, 2023 and found data as much as 4753.

The tweets data obtained is then processed with several stages such as cleaning tweets other than

Indonesian, cleaning hashtags and links using different scripts in google colabs. This cleaning process is commonly known as NLP (Natural Language Processing) (Khurana et al., 2023). After the cleaning process, the data is processed again using Orange software. Orange software is one of the software that can be used to process data with python programming language which is simplified in the form of software (Ishak et al., 2020). Through Orange Software, people's tweets are categorized based on sentiment analysis into three; positive, neutral and negative.

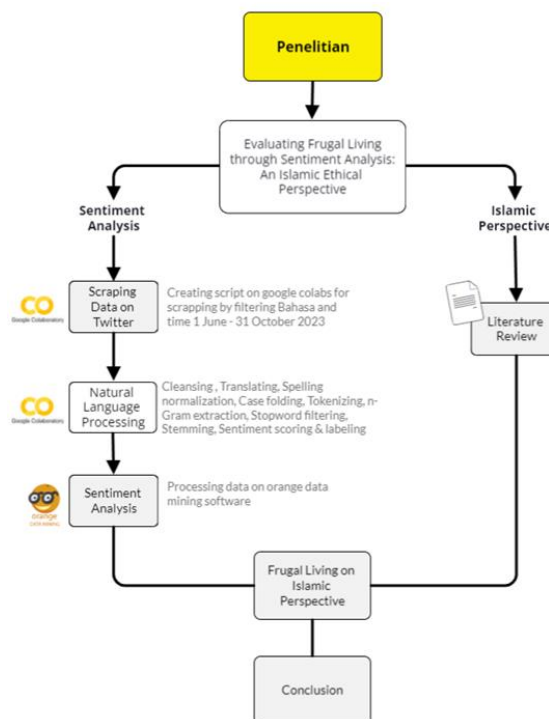Here is the research flowchart:

Figure 3: Research flowchart

RESULTS AND DISCUSSION
The Influence of Social Media on Lifestyle

The increasing contribution of digital aspects to the economy based on increasingly sophisticated technology and infrastructure, convenience and speed due to the digital-based economy that is brought has simplified, accelerated and changed the structure of demand and supply of goods for economic actors from various sides, such as marketing, purchasing, product distribution, payment systems, and so on. Therefore, product sales transactions can be carried out in the palm of your hand through electronic networks (Lestari, 2021), this is what makes changes in consumption patterns and people's lifestyles. People now tend to keep up with the times and always feel left behind,

they flock to follow trends on social media and tend to imitate someone's lifestyle. This causes people to have consumptive behavior (Haryanto et al., 2023). Social media supports social interaction and social media uses web technology that turns communication into an interactive dialog (Rafiq, 2015). On social media, many people are competing to show social identity with the aim of distinguishing someone from others. This shows a self-essence that is expressed as a representation of the form of recognition of oneself and others. Social media brings various lifestyle influences (Hairil Akbar, 2016).

The Rise of Consumptive Lifestyles

Lifestyle is defined as a person's life in using money, allocating time, and so on. Lifestyle is a person's pattern of life in expressing something in activities, interests, and opinions. A person's lifestyle can be seen from the activities carried out, thoughts about everything around and concern for oneself and others (Kanserina, 2015). According to (Haryani, 2015) consumptive lifestyle is a behavioral phenomenon that tends to incur higher costs not to meet needs but rather to fulfill the demands of desire. One of the factors that cause consumptive behavior is self-esteem (Alamanda, 2018). Consumptive lifestyle parameters are usually shown by several behaviors such as, buying goods because they are lured by gifts, discounts, attractive packaging, limited edition, meeting social status that must be maintained, products that bring up admired models, buying similar products with different brands, following trends (Lizein et al., 2023).

The Emergence of Frugal Lifestyle (Frugal Living) in Islamic View

Frugal lifestyle or Frugal Living is an economic life style that prioritizes things that are prioritized with the aim of accelerating the achievement of financial dreams. This frugal living lifestyle reflects a discipline and intelligence in financial management. It is also a controller of excessive consumptive behavior in order to achieve goals in the long run. The frugal living lifestyle is in line with what has been taught in Islam. In Islam, it is not recommended to behave excessively in any case. The Prophet has preached that excessive behavior is a wasteful attitude, this attitude is not taught in religion and Allah does not like this behavior. The concept of frugal living in Islam is to apply a frugal lifestyle so that a person

can manage the income and expenditure of sustenance from Allah by prioritizing several priorities and encouraging a person to give up what is not really needed. Frugal living behavior also avoids Israf (excessive) and Tabdzir (wasteful) attitudes. The benefits of frugal living in Islam are getting a gift from Allah SWT, doing charity, following the sunnah of the Prophet and friends, being free from debt, having an emergency fund, and peace (Maisyarah & Nurwahidin, 2022).

In general, this research aims to analyze public sentiment towards the frugal living phenomenon based on twitter users' opinions. Data scrapping aims to retrieve all data related to the topic of this research to obtain negative, positive, and neutral opinion group data. The research requires accuracy calculation with confusion matrix, and visualization of analysis results in the form of histograms and wordclouds. Finally, the topic of frugal living will be comprehensively examined through the sharia perspective.

The phenomenon of frugal living has just emerged in the Twitter community in early July 2023, so there are not many scientific articles that examine this phenomenon. In international reputable journals, research related to frugal living behavior has never been discussed using a sharia perspective. Figure 1 shows the distribution of research in reputable international journals that discuss frugal living.
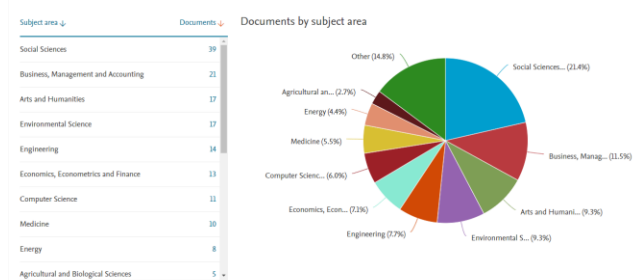

Figure 1: Distribution of research subject areas on frugal living
Source: Scopus, accessed October 25, 2023

Frugal living is a lifestyle that is being post-pandemic covid19, especially for the middle to lower economic circles (Maisyarah & Nurwahidin, 2022). According to Imran, frugal living is a lifestyle that is frugal or economical with the amount of money used for consumption. However, conceptually, it is defined as a style or

way of allocating a certain amount of funds according to needs so that it is not excessive (Rosyadi, 2023). Although this lifestyle has a positive impact, not a few state that this lifestyle has a negative impact on a person's social aspects (Amanda, 2023).

Research Scenario

Displaying the text clustering widget design using the Orange Data Mining application as shown below. Data that has been crawled from twitter is then covered and analyzed one by one based on the object. Then connected to the widget in accordance with the research so as to produce a widget as shown below:
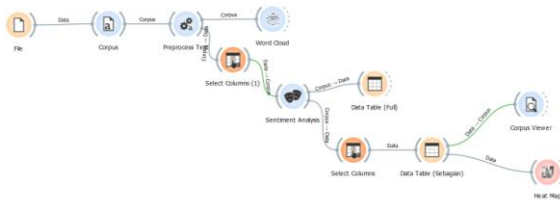

Figure 4. Text Clustering Widget Design

Crawling Data (Twitter)

In this research, data is obtained through the data crawling method using the Google Colabs script. The collected data is then downloaded and formatted into CSV files, and Orange Data Mining software is used to process the data.

Figure 5. Data Crawling

Corpus

Before entering the data into the Preprocess Text step, the researcher added a Corpus widget to select sentence columns from tweets uploaded by the community to be analyzed. This widget ignores other columns, such as username, tweet link, and tweet upload date. Below is an image showing the corpus widget added by the researcher.
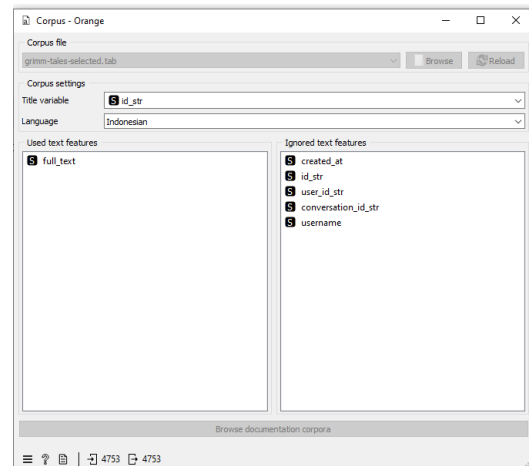

Figure 6. Corpus

Preprocess Text

Before text analysis, the implementation of text mining to perform text processing in this case is to preprocess text. The text is divided into smaller units (tokens) and then transformation, tokenization, normalization, and filtering. The analysis steps, which are applied sequentially can be enabled or disabled in the Preprocess Text widget in the Orange Data Mining application (Muhammadi, Laksana, and Arifa 2022). In text analysis using Orange Data Mining, there are several preprocessing steps carried out before further analysis, namely: Transformation, Tokenization, Normalization, and Filtering. Transformation converts input data to lowercase by default. Tokenization is a method of breaking text into smaller components such as words and sentences without removing punctuation symbols, and can be used to analyze trends. Normalization improves the meaning of the text using WordNet Lemmatizer which relies on a network of synonyms from a large Indonesian dictionary provided by the Natural Language Toolkit (NLTK). Filtering is the process of removing unnecessary words and retaining necessary words, including the Stopwords function to remove text closing words, the Regexp function to remove words that match regular expressions, and the Most Frequency Token which indicates highest number of words with Wordcloud on Orange Data Mining.
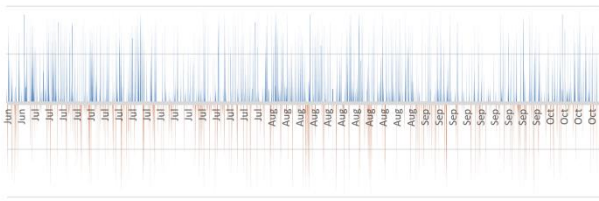
Figure 7. Preprocess Text

Word Cloud

The data is then converted into frequently used keywords in the form of a word cloud in Orange Data Mining after going through the Text Preprocess stage. The image below is the Word Cloud. Figure 7 shows the most dominant Frugal keyword found with a total of 2863 times which is also the focus of discussion in this study. The keyword living is also the most dominant keyword after the frugal keyword with 2592 keywords and this keyword has continuity with the frugal keyword in the research. Then the next most dominant keyword is the keyword live which is another name for the word living with a total of 502 words found. The next word is buy with 215 words found. The next word is frugal with 182 tweets using this keyword, which is the object of focus for research on the development of lifestyles in this study.

Figure 8. Word Cloud

Sentiment Analysis

The analysis process uses the Vader algorithm to classify sentiment into popularity or groups, including: positive, negative, and neutral.

Figure 9. Sentiment Analysis with Multilingual Sentiment method

Data Table

The data table is also the result of the display of the attributes selected in the previous step, namely the display as the output of the column select widget. The results of analyzing the sentiment analysis data table using Twitter crawling data, and seeing the total score (Compound) using a calculation formula in numeric data format to determine how positive, negative, and neutral the sentiment is.

Figure 10: Data Table

Overtime Sentiment

Shown in Figure 11 with an overtime sentiment diagram with a period of June 2023 to October 2023. The diagram shows the development of sentiment phenomena related to frugal living has developed in each month. It can be seen that in August 2023 there is a negative sentiment that shows the highest number, the sentiment shows that there is a public opinion about the difficulty of implementing frugal living because income income tends to be still below making an imbalance in meeting their needs. Whereas in August 2023 there is also a positive sentiment with the highest value of 909,901, indicating that people agree to implement frugal living.

Figure 11. Overtime Sentiment Diagram

Sentiment Precentage

Figure 12 shows the percentage of each sentiment. The percentage of negative sentiment shown in blue on the diagram is 17% with a total of 802 data while the percentage of positive sentiment shown in orange is 1296 data and the percentage of neutral sentiment shown in gray is 2655 data.
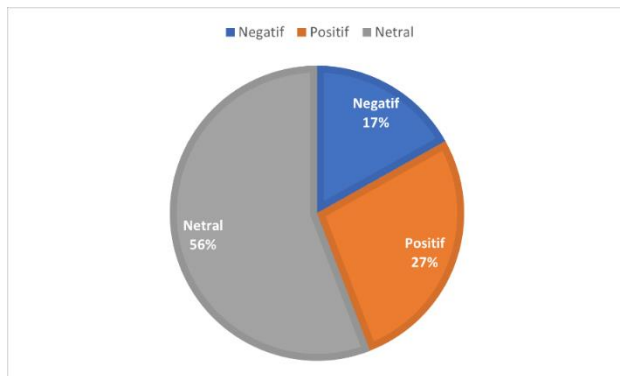

Figure 12. Sentiment Percentage Diagram

Heat Map Visualization

The viewable results derived from the two selected matrices in the form of numerical data are given by the Heat Map widget. Furthermore, to identify the sentiment of the tweet data used, the value and color indicate the strength of each attribute. Based on the Heat Map value, the sentiment of the group of tweet data used is more positive if the value is greater or greater than 0.00, and conversely the sentiment obtained is more negative if the value is lower or less than 0.00.

In the data, the sentiment value can also be the color displayed by the Heat Map widget. Yellowish green color indicates positive sentiment value, while bluish green color indicates negative sentiment value. The Heat Map visualization results shown in Figure 10 show the sentiment value data. Figure 12 shows that frugal living is dominated by neutral sentiment with a total of 2655 data.
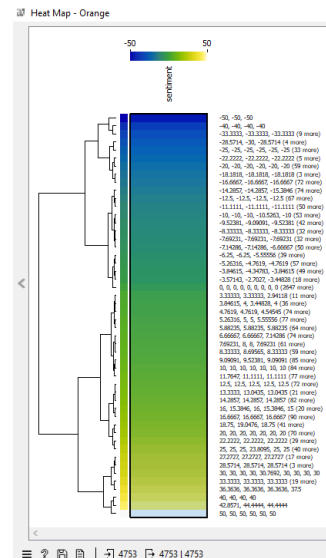

Figure 13. Heat Map Visualization

Corpus Viewer

In addition to showing the data from the heat map visualization, researchers also added a corpus viewer widget to show examples of sentiment data obtained and conducted by researchers using the Orange Data Mining application. Below displays an image that shows an example of negative, neutral,and positif, sentiment values.
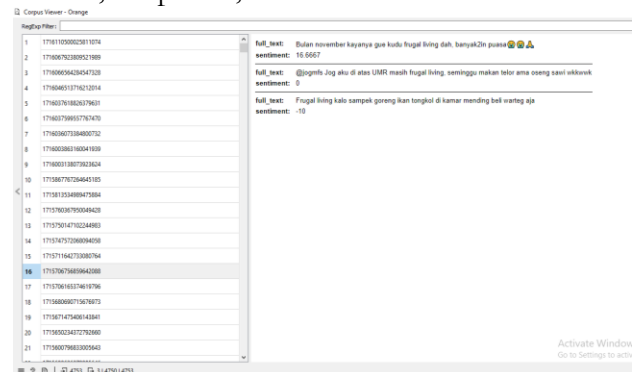

Figure 14. Corpus Viewer

From the picture above, it can be seen that the sentiment shows the results of a positive value of 16.6667, a negative sentiment value of -10, and a neutral sentiment of 0. It can be concluded that the positive sentiment shows people who think strongly agree with frugal living to prioritize their needs and make someone wise in their spending. While in negative sentiments, the average person argues that being frugal living is considered not respecting yourself if you don't spend your desires because of the need for self-appreciation for what they have achieved, they think that with frugal living we are told to live stingy and economical. Then for neutral sentiments, people think that

frugal living is important but appreciating themselves by buying something for their desires and self-satisfaction is also considered important so it can be said that people who have neutral sentiments tend to do both or maybe not do it at all. In Islam, it is taught to live simply, which is able to control the lust in doing and spending something. Frugal living is highly recommended by Islam, because by living frugally we as humans are able to manage our finances properly and refrain from being wasteful.

CONCLUSION

Based on the results of the data mining process carried out with the Orange application to find out public sentiment about Frugal Living on Twitter. It was found that the most dominant sentiment was neutral with a percentage of 56% or a total of 2655 tweets. The positive sentiment is in second place at 27% or 1296 tweets and the negative sentiment is 17% or 802 tweets. This is shown in an analysis result using Orange. Some public opinions published on Twitter social media show support for the emergence of a frugal living lifestyle. They revealed that frugal living can have a positive impact and is good for the long term. Managing finances in spending and consumption is something that is highly prioritized for people who practice frugal living. Frugal living is not only for people with high incomes but people with low incomes can also apply this frugal lifestyle. In Islam, a lifestyle especially a frugal lifestyle is highly recommended, this has been regulated in verses in the Qur'an. Life is simple and not excessive in order to gain prosperity and be free from wasteful attitudes. In addition to avoiding wastefulness, frugal living also gives us the lesson that we also have to manage our finances so that we can benefit ourselves and others in the future.

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