Sentiment Analysis of the Indonesian National Team in the 2026 World Cup Qualification on Social Media X Using Naive Bayes

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The increasing public attention toward the Indonesian national football team during the 2026 FIFA World Cup qualification has generated diverse opinions on social media X. This study analyzes public sentiment expressed in X posts concerning the Indonesian national team's performance during the qualification period using a Naive Bayes classifier. A total of 1,600 tweets were initially collected using the Tweet Harvest tool with the keyword “Indonesia World Cup 2026 qualification.” After data cleaning, duplicate and missing-value removal, and sentiment labeling using an Indonesian sentiment lexicon, 750 final labeled tweets were used for classification into positive and negative sentiment classes. The data were processed through tokenization, case folding, Indonesian stopword removal, token filtering, and TF-IDF weighting. The Naive Bayes model was evaluated using a 90:10 training-test split and a confusion matrix. On the test set of 75 tweets, the model achieved an accuracy of 68.00%, with a precision of 50.00% and recall of 62.50% for the positive class. The results indicate moderate classification performance rather than consistently high predictive performance. The contribution of this study is to provide an event-specific empirical analysis of sentiment toward the Indonesian national team during the 2026 World Cup qualification and to establish a baseline for sentiment classification using Naive Bayes on Indonesian-language X data. The findings may provide contextual information about sentiments expressed by the analyzed X users, although they should not be interpreted as representing the sentiment of the Indonesian population as a whole.

Keywords: Data Mining, Classification, Naïve Bayes, Sentiment Analysis, Indonesia

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1. Introduction

In today's digital age, social media has become a major platform for people to convey opinions, responses, and sentiments related to various issues, including sporting events [1]. One of the sports events that always attract the attention of the Indonesian people is the match of the national team (national team) of Indonesian football, especially in international events such as World Cup qualifiers. The participation of the Indonesian national team in the 2026 World Cup qualification is one of the hot topics discussed on various social media platforms, one of which is X (formerly known as Twitter). X has millions of active users around the world, so news uploaded through this platform can quickly spread to various parts of the world, the use of X often increases when important and interesting events such as presidential elections, celebrity deaths, and one of the topics that will be discussed in this study is the Football World Cup[2] . As a platform that has millions of active users around the world including Indonesia, social media X is a place for football fans, analysts, and the general public to voice their opinions regarding the performance, strategy, and results achieved by the Indonesian national team. In Indonesia itself is one of the countries with the most football fans in the world with 77% of the Indonesian population has an interest in the sport of football[3] .

Discussions about the Indonesian national team on social media are not always positive. Many comments were negative, even sharply criticizing if the performance of the national team was considered

unsatisfactory. On the other hand, when the national team wins or shows an impressive performance, abundant praise and support is also seen in various uploads on social media. However, with the large volume of data generated by users, it is difficult to manually analyze how public sentiment towards the Indonesian national team in the 2026 World Cup qualification as a whole.

Opinion Mining is also known as sentiment analysis, a system built to collect and evaluate/test opinions written in blog posts, comments, reviews or other online media. Opinion Mining is a branch of Text Mining. The focus of Opinion Mining is to conduct opinion analysis of a text document[4] . In this context, sentiment analysis becomes one of the effective approaches to assess how public perception and opinion towards the National Team. Sentiment analysis is a technique or process used to evaluate and identify sentiments, feelings, or emotions contained in a text, such as a document, article, review, or social media message[5]. Sentiment analysis allows us to understand the emotions and opinions contained in the posts on social media, whether more inclined towards positive or negative sentiment[6]. By utilizing machine learning technology, we can automate this sentiment analysis process and produce a more comprehensive and accurate picture of how the public reacts to the performance of the Indonesian national team in the 2026 World Cup qualification.

Machine Learning has several techniques that can be done in various ways, but in this study the author will use Supervised Learning techniques to perform a classification model on the data. Supervised learning is a machine learning method in which models are trained using data that has been labeled[7]. This model learns to map inputs to outputs based on labeled examples of training data. The goal is to predict or classify new data based on patterns that have been learned from training data[8]. One of the algorithms widely used in sentiment analysis is Naive Bayes. The algorithm is known for its simplicity and effectiveness in classifying texts by sentiment. Using Naive Bayes, we can build a model that can predict whether a text or tweet on social media has a positive or negative sentiment[9]. By analyzing thousands or even millions of posts on social media X, we can gain valuable insights into how the public responds to any match or event related to the Indonesian national team during World Cup qualification.

The practical objective of this study is to provide an overview of positive and negative sentiments expressed by X users regarding the Indonesian national team's performance during the 2026 World Cup qualification. From a scientific perspective, the study provides an empirical baseline for Indonesian-language sentiment classification in this specific event context by combining lexicon-based sentiment labeling, TF-IDF text representation, and Naive Bayes classification. The contribution of this study therefore lies in documenting the sentiment characteristics and classification performance of X data related to the 2026 World Cup qualification, rather than proposing a new classification algorithm.

2. Literature Review And Problem Statement

Several related studies on sentiment analysis with discussion of the Indonesian football world have been carried out previously by several researchers, including sentiment analysis of Indonesian Twitter users against the 2022 World Cup using the Naive Bayes Classifier method, this study identifies problems related to the response of the Indonesian people on Twitter regarding the 2022 World Cup held in Qatar. Its purpose is to analyze public sentiment using the Naïve Bayes method with the help of the Rapidminer device. Of the data obtained, positive sentiments predominate, with the accuracy of the analysis reaching 97.33%[10]. In another study, namely sentiment analysis of the cancellation of Indonesia to host the U-20 World Cup using Naive Bayes method, this study aims to analyze public sentiment towards the cancellation of Indonesia as the host of the U-20 World Cup using naïve Bayes Multinomial model. The Data, taken from Twitter, focused on classifying opinions that contain positive, negative, or neutral sentiments. The results showed a predominance of negative sentiment by 75%, while positive and neutral sentiment respectively

by 19% and 5%. The Model used achieved an accuracy of 85%, showing a fairly good ability to classify public opinion on social media related to this issue [3]. A similar study, which analyzed the sentiment of Indonesia's cancellation as the host of the FIFA U-20 World Cup using Naive Bayes, identified problems related to the cancellation of Indonesia as the host of the U-20 World Cup by FIFA, which was triggered by security concerns and the absence of diplomatic relations with Israel. The purpose of the study was to provide insight to the public through sentiment analysis by collecting and classifying public opinion on Twitter about this decision. Using the Lexicon Based method and the Naïve Bayes algorithm, the results showed a predominance of negative sentiment of 84.14% of the total 946 tweets, reflecting the public's disappointment with FIFA's decision. Model evaluation showed 84% accuracy, with 86% precision, 95% recall, and 90% f-measure[11]. Another study in the implementation of the Naive Bayes algorithm on sentiment analysis of changes in the U-20 World Cup, this study aims to analyze public sentiment on Twitter regarding changes in the host of the FIFA U-20 World Cup 2023 which caused controversy in Indonesia, especially related to the rejection of Indonesia as the host associated with diplomatic issues. The Naive Bayes method was used to classify the positive and negative sentiments of 2800 tweet data, which were then tested using the confusion matrix to calculate accuracy, precision, and recall, with results of 96%, 94.83%, and 99.56%, respectively. These results indicate that the Naive Bayes model has high performance, and the majority of people's responses tend to be positive to the decision[12]. The last study is the classification and analysis of sentiment on Twitter data using Naive Bayes algorithm (case study: Senior Indonesian national team, U-23, and U-19), this study aims to analyze public sentiment towards the performance of the Indonesian football national team through Twitter using Naïve Bayes algorithm. The study was conducted by classifying tweets related to the Indonesian national team into positive and negative sentiments. The Data was taken from February to May 2021 for a total of 232 tweets, which then went through a TF-IDF pre-processing and weighting process. The classification results showed that the Naïve Bayes algorithm achieved 83% accuracy, with a positive precision value of 86%, negative precision of 81%, recall of 78%, and specificity of 87.5%, which was measured using the confusion matrix method[13] . Based on the description above, the researcher can make a conclusion that the algorithm used can help solve problems in the classification process for analysis and prediction that will be discussed in this study.

Based on the comparison of previous studies and the identified research gap, this study applies the Naive Bayes algorithm to classify positive and negative sentiments expressed in Indonesian-language X posts concerning the Indonesian national team's participation in the 2026 FIFA World Cup qualification. The analysis combines lexicon-based sentiment labeling and TF-IDF text representation to construct the classification model. The model is subsequently evaluated using a 90:10 train-test split and confusion matrix-based metrics. Through this approach, the study aims to provide an empirical description of sentiment distribution and an assessment of Naive Bayes classification performance within the specific context of the 2026 World Cup qualification.

3. Method

Object Of Research

The object of this study was to use tweet and retweet data related to the sentiment of the Indonesian people regarding conversations on social media Twitter, or what is now known as X, about Indonesia's qualification for the 2026 World Cup. X is a social network that makes people communicate with each other and receive the latest information or news. X allows people in the world to connect with others through their devices. The X service for users includes the generation of status reports. User X is free to express opinions and statements regarding services, institutions, or political topics or debates[14]. The object of this

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study focused on how people express their views, emotions, or opinions on these qualifications through social media.

Methods used

The analysis process in this study has several methods that will be implemented, such as data collection, data processing, classification algorithms used, and evaluation. Here are the stages:

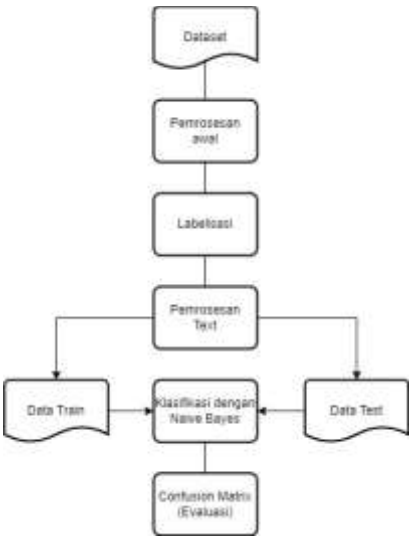


Fig.1. Research Flow

Crawling Data

Crawling is the automated process of accessing, retrieving and collecting data from various sources[15].such as social media site X. in this process requires a program to be able to access web pages systematically and then download and store information data for further analysis, in this process the program that will be used in this study is tweet-harvest where this program will be run on Google Colaboratory using Python programming language. Google Colab, short for Google Colaboratory, is a cloud platform provided by Google for running and writing Python code through a browser without requiring additional configuration[16]. To be able to run this program, Tweet-harvest requires an authorization token code obtained by logging into an X account and extracting the code. The keyword searched in this Data Crawling process is “Indonesia World Cup 2026 qualification " with Indonesian text data content. In this process, the author can only access X's data as many as 600 data for a day with an account that has been created for a long time and has not been verified, this is because of the policy rules that have been made from X's social media.

In this case, the author can only crawl data of approximately 600 data per day, therefore to get the population data, many authors withdraw data the day after the event (World Cup qualifying match) is carried out in order to get more relevant data. A total of 1,600 tweets were collected and analyzed. After the data that we have obtained from the results of data crawling, the last stage in this process is to save it to our local PC storage in csv file format.

Initial Processing

At the initial processing stage, this is done to facilitate the process of sentiment analysis research, namely cleaning the data. The data that has been obtained from the results of data crawling will be processed to eliminate data errors, duplicate data, missing value data, and other data cleaning so that the sentiment analysis process is not disrupted due to irregular data.

a. Attribute Selection

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The first step in this initial processing is attribute selection. This stage needs to be done because the data that has been obtained from the results of data crawling there are a lot of attributes that are not useful for the final results of sentiment analysis later. At this stage the author only takes the attribute column ”full_text” because the author only wants to take text data only.

b. Cleaning Data Text
In the attribute column ”full_text '' has data that contains text, but in the attribute column has text that is also still not useful for the final results of sentiment analysis later, such as captions, URL links, symbols, characters and many other useless text. Therefore, this process will eliminate all the useless text in the “full_text '' column. This is necessary in order to maintain the quality and relevance of the data, as well as ensure more accurate analysis.

c. Remove Duplicate & Missing Values
The last stage of initial processing in this study is to remove duplication of data and the contents of the missing data. Deleting the contents of the missing data is done because after cleaning the text data there will usually be a missing data document, this happens Usually there is one data document that only contains a caption or URL link Reply on one upload, as a result when cleaning, one document becomes no content (missing value). Therefore, this stage needs to be done.
Apart from that stage, the other stage is to remove duplication of data. This also needs to be done so that a document does not have excessive weight because the document has the same data content in other documents. Because it can also lead to increasing the size of the dataset without adding any information.

Labeling

The next step is labeling. This stage is carried out to mark against a text data document that contains responses or opinions whether the specimen is “positive” or “negative”. At this stage the author does not include sentiment “neutral”, because the sentiment does not provide any answers to the two sentiments. In this study, sentiment labelization will be done automatically based on the Inset dictionary (Indonesian sentiment lexicon) using Lexicon Based method techniques. The quality of the results of sentiment labelling depends on the corpus or dictionary of words it uses.

Text Processing

At this stage, it is aimed at weighting the word. Implementation of this stage, each word in a text is assigned a value or weight that is determined based on its significance or impact on the meaning of the text as a whole. Regardless of whether the content is positive or negative, the goal is to emphasize and pinpoint words that significantly impact the meaning of the sentiment. In the process of weighting the word is done using the method of Term Frequency-Inverse Document Frequency (TF-IDF). TF-IDF is used to evaluate how important a word is in a document. Term Frequency (TF) is the higher the frequency of occurrence of the term in a document, the higher the weighting value for the term itself. Meanwhile, the Inverse Document Frequency (IDF) process is the opposite of the TF process. In the IDF, the higher the frequency of occurrence of the term, the smaller the value of the term weight itself[17]. The following is an overview of the flow stages in carrying out text processing in this study:



Figure 2. Stages of text processing in this study

a. Case Folding
Used to convert all letters to lower case. This is done in order to eliminate the difference between uppercase and lowercase letters (for example, "World Cup" and "World Cup" are considered the same), thereby reducing unnecessary word variations.

b. Tokenizing
This is done to break down the text into smaller units, the goal is to make the text easier for the model to process, by identifying each important word or phrase to analyze.
c. Stopword Removal
Used to remove common words that appear frequently but do not carry an important meaning (for example "dan", "atau", "dari"). This is done to reduce noise in the data, so that only meaningful words affect sentiment analysis.

In addition, Word Cloud visualization uses these stages to display text data. Word cloud is used in this study to show and determine which words appear most often to appear least frequently in data that has gone through text processing[18].

Data Mining Deployment

This stage is the core stage in this study which is used to create a sentiment analysis model, namely data Mining Deployment. At this stage the Deployment in question is the implementation of classification methods using Naive Bayes as a method proposed in this study. Naive Bayes Classification method is one of the many algorithms that are often used in the process of text mining. Naive Bayes is often used to classify data in written form[19]. One of the characteristics of Naive Bayes is the presence of the most powerful (naive) opinion regarding the degree of magnitude of a condition or event[20]. To be able to calculate the Naive Bayes Classifier algorithm using RapidMiner, it is necessary to separate the data into two for data that has been labeled sentiment, namely training data and test data. The formula of Bayes ' Theorem is as follows[21]:

$$P(H|X) = \frac{P(X|H)P(H)}{P(X)} \quad (1)$$

Description:

X	: Unknown Data.
H	: the data hypothesis X is class-specific.
P (H|X)	: probability of hypothesis H based on condition X (Posterior Probability).
P (H)	: the probability of hypothesis H (Prior Probability).
P (X|H)	: probability X based on hypothesis H.
P (X)	: Probability X.

Model Evaluation

The last step in making sentiment analysis model is Evaluation. This stage is done to measure the performance of a working model through the calculation of Confusion Matrix by measuring the level of accuracy, precision and recall in the classification model. Accuracy in classification is the percentage of accuracy in data records that have been classified correctly after testing the results of classification. Precision or confidence is the proportion of cases that are predicted to be positive, the actual data is also positive. Recall or sensitivity is the proportion of correctly predicted positive cases this evaluation method is used to measure performance[22]. This evaluation stage is important to find out whether the Naive Bayes model works well in analyzing sentiment, while understanding the strengths and weaknesses of the model from various aspects. The calculation formula of the Confusion Matrix is as follows[23]:

1. $Accuracy = \frac{TP+TN}{TP+TN+FP+FN}$ (2)
2. $Precision = \frac{TP}{TP+FP}$ (3)
3. $Recall = \frac{TP}{TP+FP}$ (4)

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4. Results And Discussion

Research Results

The purpose of this study is to determine the assessment of the Indonesian people on the performance of the Indonesian national team during the 2026 World Cup qualification based on the sentiment of the uploads given by the Indonesian people on social media X where undoubtedly this information can be useful for stakeholders, and to measure the ability of Naive Bayes algorithm in classifying positive and negative sentiment sentences in public opinion. After the analysis and testing of the data that has been discussed in the previous chapter, the author will present the results of the test data processing carried out in this study.

Crawling Data

In this study, the authors crawled data using the Tweet Harvest help module where this module will be run using the Python programming language and Google's cloud service platform, Google Colaboratory. The authors used this help tool because X announced that they would introduce a paid subscription model and end free access to the API. Many third-party applications and services that use API X are affected by this change. In the end, RapidMiner decided to remove the "Search Twitter" operator, which is very important for sentiment researchers. So, the author tried to use the Tweet Harvest library in Python to still be able to pull API x data.

As previously explained, that social media X has limited access to or withdraw data on social media, therefore the author periodically withdraws data by determining the withdrawal time in order to obtain more recent and relavan data, namely after the event (Football match) took place.

Initial Processing

Pre-processing is done before labeling sentiment in the data. At this stage of preprocessing, the main objective is to ensure that the data to be processed is of good quality or clean. The following are the stages of data preprocessing conducted in this study:

a. Data Selection

This stage is done to select the data to be used. This step is necessary so that the data processing process becomes more structured and not disturbed by the number of columns that are not needed. In this study, the column to be used is the column that contains text data, namely the column "full_text". Here is a picture of the results of the data selection process conducted:



Fig.3. Data Selection Results

b. Data Cleaning

This stage is a process of cleaning the text of the data, where cleaning is done to clean the contents of tweets from irrelevant elements, such as symbols, characters, or Numbers that are not needed in the data processing process later. Here is the process performed on RapidMiner:

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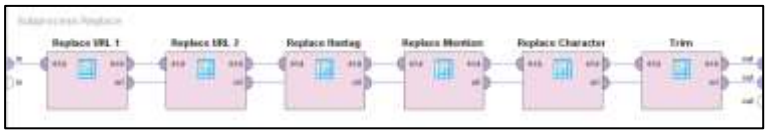


Fig.4. Operators used for data cleaning

"Replace URL 1 “to remove URLs followed by text,” Replace URL 2 “to remove URLs with no text after it,” Replace Hashtag “to remove hashtags,” Replace Mention “to remove mention tags from usernames,” Replace Character “to remove unnecessary characters, symbols, or Numbers, and” Trim" to remove spaces at the beginning or end of strings in text data.

c. Removing duplicates and Missing Values

This stage is a step to remove duplicate data and missing values after the cleaning process. At this stage, two RapidMiner operators are used to eliminate duplicate data and missing values, namely the “Remove Missing values” and “Remove Duplicates”operators. After the data cleaning process, duplicate removal, and missing value handling, the number of records was reduced from the initial 1,600 tweets to [N] tweets. This reduction occurred because several records contained duplicate entries, incomplete information, or content that did not meet the data selection criteria. The resulting dataset was subsequently used for the sentiment labeling process.

Labeling

In this study, sentiment labeling will be done using Lexicon based technique based on Indonesian dictionary. Lexicon-based sentiment labeling works by utilizing a dictionary or list of words (lexicon) that have been labeled sentiments, such as positive, negative, or neutral. Each word in the analyzed text will be matched with the words in this lexicon. The text sentiment score is calculated based on the accumulated sentiment score of each word found. For example, if a text contains more words labeled positive than negative, it will be labeled positive. The study did not include a neutral label because it did not provide meaningful information.

Following the lexicon-based sentiment labeling process, the tweets were categorized into positive and negative sentiment classes, while neutral sentiment records were excluded from the classification dataset. The final distribution consisted of [N] positive tweets ([X]%) and [N] negative tweets ([X]%). This distribution provides an initial overview of the sentiment expressed by X users regarding the Indonesian national team during the 2026 FIFA World Cup qualification. In this process, the author will use Google Colaboratory as a module to run this lexicon-based program code:



```
import pandas as pd

data = pd.read_csv('Data_KIPI2026 (CLEAN).csv')
data.head(10)
```

Show hidden output

```
positive_lexicon = set(pd.read_csv("InSet_positive.tsv", sep="\t", header=None)[0])
negative_lexicon = set(pd.read_csv("InSet_negative.tsv", sep="\t", header=None)[0])

def determine_sentiment(text):
    positive_count = sum(1 for word in text.split() if word in positive_lexicon)
    negative_count = sum(1 for word in text.split() if word in negative_lexicon)
    if positive_count > negative_count:
        return "positive"
    elif negative_count > positive_count:
        return "negative"
    else:
        return None
        # return "neutral"

data['sentiment'] = data['full_text'].apply(determine_sentiment)
data.head(10)
```

Fig.5. The Process Of Labeling Data Using Lexicon-Based.

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Text Processing

In this process, the data used has gone through the preprocessing stage, but the sentiment label is not included, because it does not affect the final result in weighting. Before weighting words, text preprocessing is done first. The following is the process of text preprocessing applied in this study:

a. Tokenizing
   This step is important because it allows the raw text to be transformed into a format that is easier to process, such as calculating the frequency of words or giving weight to words. In this study, the process is carried out using Tokenize operator on RapidMiner tools. Here are the results:

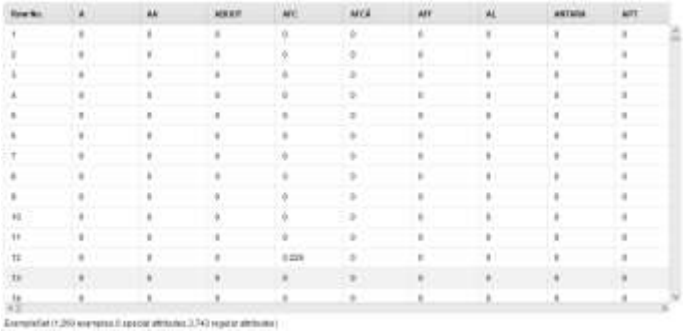


Fig.6. Tokenizing Results.

b. Case Folding
   This process is carried out to convert all letters in the text to lowercase, thus eliminating the difference between capital and lowercase letters. The goal is to simplify text analysis by ensuring that the same words are consistently recognized. In this study, the process is carried out using the Transform cases operator on RapidMiner tools.

c. Stopword Removal
   At this stage of the Stopword Removal process, we cannot use the default operator from RapidMiner, because the tool does not yet provide an Indonesian Stopword Filter operator. Therefore, the author uses the Stopword (Dictionary) Filter operator with the Indonesian Stoplist file which can be downloaded from the link https://www.kaggle.com/datasets/oswinrh/indonesian-stoplist. the File contains 758 lines of words, where the words in the file will be used as a Stopword List to remove unimportant words from the data.

d. Filter Tokens
   In this study, another operator is used in the process of text preprocessing, namely Filter Tokens (by length). The use of this operator aims to remove the words that have been determined the minimum and maximum number of characters. This process is done to eliminate shorthand words, such as “yg”, “dri”, “sbg”, and other words that may be abbreviations with characters that exceed the limits specified in the operator. In this case, the minimum number of characters that will appear is 4 characters and the maximum is 25 characters.

In the above processes, all steps are collected in a subprocess on the Process Documents from Data operator, because this is where the author will determine the word weighting method to be used, namely TF-IDF. Here is the arrangement of operators used for weighting words with TF-IDF:

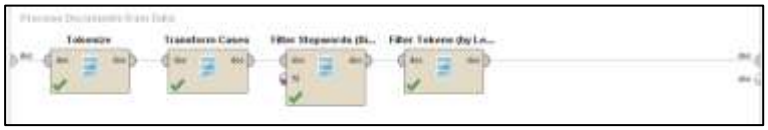


Fig.7. Arrangement of operators used on the TF-IDF stage.

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Data Mining Deployment

This stage is the core of the research, namely the deployment stage or implementation of the Naive Bayes Classification method, where this process serves to make decisions or provide insights from the data that has been analyzed. The purpose of this process is to build a Machine Learning model to determine whether a sentiment is positive or negative. This process will also calculate the level of accuracy, precision, and recall as an assessment of the model built using the Confusion Matrix. Here is the array of operators used in this process:



Fig.8. Arrangement of operators for sentiment analysis using Naive Bayes.

Validation operators are also like Subprocess operators, which are operators that can store other operators. However, this operator can only store modeling operators, which are operators that can run Training Data and Testing Data. This Operator is specifically for use in modeling as well as a module for assessing the results of model testing. The following is the arrangement of operators in the implementation of the classification method with Naive Bayes algorithm:

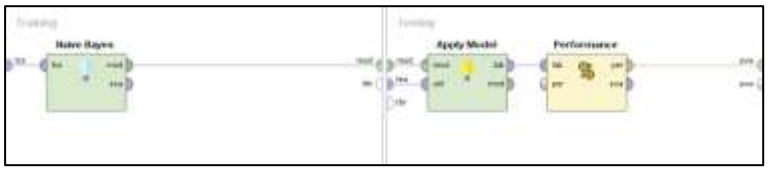


Fig.9. Arrangement of operators in the "Validation" Subprocess.

Model Evaluation

In the process of implementing the Naive Bayes Classification method above, a model has been created to analyze sentiment. The Model is then tested to find out how effective it is at predicting sentiment analysis. The test was conducted using Confsuion Matrix evaluation with 9:1 data division and automatic sampling type. Prediction shows the accuracy between the information requested by the user and the answer given by the system. After the data is divided, the predictive value is determined. The accuracy of the model testing on the data is 68% which is quite good with precission of 50% and recall of 62%. The evaluation results show that the Naive Bayes classifier achieved an accuracy of 68.00% on the testing dataset. This indicates that the model correctly classified 51 out of 75 tweets. Although the model was able to distinguish between positive and negative sentiment classes, its classification performance remained moderate, indicating that some tweets were still incorrectly classified. Here is a picture of the test results on RapidMiner:

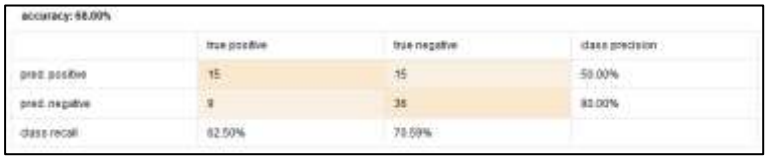


Fig.10. Model Evaluation with Confusion Matrix.

The class-specific evaluation results show that the model achieved a precision of 50.00%, a recall of 62.50%, and an F1-score of 55.56% for the positive class. For the negative class, the model obtained a precision of 80.00%, a recall of 70.59%, and an F1-score of 75.00%. These results indicate that the classifier performed better in identifying negative sentiment than positive sentiment. Furthermore, the

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macro-F1 score of 65.28% and balanced accuracy of 66.54% provide additional evidence of the model's moderate classification performance across the two sentiment classes.

Word Cloud

Word Cloud creation procedure is then performed after the accuracy of the test results obtained from the Naive Bayes Classification model. By displaying word variations that occur in the data, word cloud visualization is used to ascertain the frequency of each word. The terms that appear the most in the text are indicated with the largest writing on the word Cloud visualization result; conversely, the words that appear the least in the text are marked with the smallest writing. After the preparation of the text, the Word Cloud visualization can be displayed using the following operators:

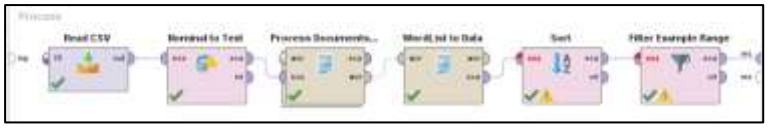


Fig. 11. Arrangement of operators to perform Word Cloud visualization.

In the image above, the author needs several operators to display the word cloud visualization. The “Wordlist to Data” Operator is used to convert a wordlist into a data format that can be used for further analysis or visualization. The “Wordlist to Data " Operator is required because word clouds require structured input of word pairs and their frequencies. After that, the “Sort” operator is used to sort text data by the frequency with which it appears. Finally, the operator “Filter Example Range " is used in this study to limit the number of lines of text data that will appear in the word cloud visualization, because the word cloud cannot display more than 400 words. This Operator is also used to limit the keywords that appear in the word cloud visualization. After all the process is done, word cloud visualization results are displayed. Here is the result of the visualization:

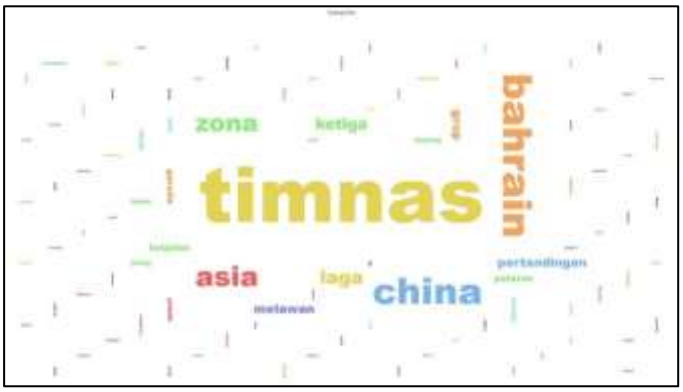


Fig.12. Text visualization results using Word Cloud.

5. Conclusion

Based on the results of research that has been done, the conclusions in this study are as follows. The results of sentiment analysis of Indonesia's qualification for the 2026 World Cup with the Naïve Bayes Classifier method showed an accuracy value of 68.00%. With a precision value for positive predictions of 50.00% and a precision for negative predictions of 80.00%, and a recall value of 62.50%, these results can be used as important insights for PSSI regarding public perception of the performance of the Indonesian national team in 2026 World Cup qualification. Public sentiment tends to be negative towards the national team's performance, especially after the defeat against China and the draw against Bahrain. Negative sentiment dominates in the public assessment of the performance of the national team. This reflects the huge expectations of the public who were not satisfied with the results of the match, which ultimately influenced their overall perception of the Indonesian national team. Thus, the results of this sentiment analysis can be an evaluation material for PSSI to improve the performance of the national team in the international arena,

pay attention to how public assessments can have an impact on the image of the national team, and make the results of this analysis as a guide to develop a better strategy in the future. The Naïve Bayes Classifier proved to be quite good and accurate. These algorithms not only produce output quickly and efficiently, but are also easy to implement and understand. Therefore, the Naïve Bayes Classifier is an effective choice in sentiment analysis.

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