1. INTRODUCTION

In this modern era, many sports sectors are starting to develop and are in great demand by the public, including the automotive sector. Automotive is an industry that produces vehicles as a means of transportation to meet people's needs [1]. Sports in this sector require facilities to be held in the form of a racing arena (circuit) to create a safe environment for racers. To have an international racing event such as MotoGP, Formula 1, and Formula E requires a circuit that meets the standards set by the organizers of these prestigious races.

Indonesia, a developing country that wants to advance the tourism sector to advance the national economy, is starting to see sports in the automotive industry as a promising sector since it has many benefits to the country that held the events [2]. This is evidenced by the construction of the Mandalika International Circuit in Lombok, the Formula E Circuit in Jakarta, and the Bintan International Circuit in Riau by the Indonesian government to hold international racing events. The construction of a racing circuit in Indonesia has sparked various responses from the public, both negative and positive. These multiple responses can happen because only some are satisfied with this policy. Some people support this policy because it is considered capable of helping the country's economy, and others do not support it because it is deemed detrimental to small traders who sell around the circuits [3]. The public also expressed many responses related to this policy through social media, especially Twitter. The freedom of expression everyone can express on Twitter makes this social media often used as a source of data to analyze the sentiment of public opinion.

With various kinds of tweets regarding the satisfaction or disappointment of the community regarding the construction of these circuits, sentiment analysis of public opinion regarding this issue will be carried out by collecting data via Twitter. Based on the results of this sentiment, it is expected to provide an overview for the government in making decisions to be able to minimize losses that may occur with this policy to the community.

Much research on sentiment analysis via Twitter has been carried out using various machine learning algorithms, such as research conducted in research [4] which examined sentiment from tweet data for an internet service provider in Indonesia using a Support Vector Machine with the addition of TF-IDF feature extraction. This study resulted in an accuracy of 87%, a precision of 86%, a recall of 95%, and an error rate of 13%. A similar study was also conducted in research [5], which examined sentiment from tweet data for e-commerce in Indonesia which had an accuracy of 93%. Similar research was conducted in the study [6], which examined sentiment in a product review using the Naive Bayes algorithm, which resulted in an accuracy and precision of 77.78%, and a recall of 93.3%. Research using the K-Nearest Neighbor was conducted in the study [7], which examined the sentiments of Twitter users regarding the election of Jakarta governor in 2017, which obtained the highest accuracy score of 67.2%. Based on several studies described above, it can be interpreted that the Support Vector Machine algorithm has a better performance than other machine learning algorithms.

Apart from machine learning algorithms, sentiment analysis can also use deep learning. Deep learning provides better performance in many cases, including the issue of sentiment analysis. Much research has been conducted to compare machine learning with deep learning algorithms, especially in sentiment analysis, such as research conducted in research [8] who compares RNN, CNN, and LSTM models with a machine learning algorithm. The research shows that the deep learning model performs better than the machine learning model. Another research was conducted in research [9] that compares many machine learning and deep learning algorithms. The result of this research shows the difference in model performance is about only 3% between the best machine learning model and the deep learning model with the deep learning has the higher value.

The deep learning model widely used in text processing is the Bidirectional Encoder Representations Transformers (BERT). BERT has examples of models that are trained using Indonesian, including IndoBERT and IndoBERTweet. Previous research was conducted on research [10] which examined sentiment from reviews of Indonesian mobile applications using multilingual IndoBERT and BERT-Base. From those methods, the result was that IndoBERT was better than multilingual BERT-Base with an accuracy value of 84%. Similar research was conducted in the study [11], which compared the performance of IndoBERT and IndoBERTweet in various cases, including sentiment analysis. From this research, IndoBERTweet has higher performance results, with an average value for sentiment analysis of 88.3% compared to IndoBERT, which has a performance value of 86%. Based on the research above, using IndoBERTweet for sentiment analysis has the potential to provide better results.

Referring to various studies in sentiment analysis using the machine learning and deep learning algorithms above, the Support Vector Machine and IndoBERTweet methods have good performance, and IndoBERTweet has

the potential to provide better results than Support Vector Machine. However, research on sentiment analysis using IndoBERTweet is still rare. Therefore, this reseach will focus on comparing Support Vector Machine and IndoBERTweet using sentiment data from public opinion on the construction of racing circuits in Indonesia.