CHAPTER V

CONCLUSION

The following chapter will discuss the conclusions of the methods of recurrent neural networks applied to sentiment analysis in section 5.1 and also suggestions for further research development in 5.2.

5.1 Conclusion

Based on the sentiment analysis result, several conclusions are obtained, specifically:

1. RNN/LSTM Sentiment Analysis on Metaverse-related opinion produced an F1-Score of 66% with a precision of 66% and recall at 67%
2. RNN/LSTM Sentiment Analysis on Metaverse-related opinion with only Two-Label Classification produced an F1-Score of 80% with a precision of 80% and recall at 79%
3. In a specific amount of datasets and models used, RNN/LSTM performs better on Two-Label Classification than Three-Label Classification
4. The number K-Fold that generates the most accuracy in this research is 3-Fold with best average accuracy.

5.2 Suggestions

The suggestions for developing the next Sentiment Analysis with Recurrent Neural Network / Long Short-Term Memory are as follows:

1. It is recommended to add more variety of data into the datasets as the RNN/LSTM model suffers from the lack of data therefore it could be easily overfitted
2. Add a data balancing method to prevent the skewness of data as seen on the classification report, the model learned more from negative sentiment rather than its counterpart.
3. Adjust the model's complexity accordingly. If more dataset is added it also needs a more intricate model. Since this research uses very little dataset it cannot use a more complex model because it could easily overfit.
4. The use of RNN/LSTM optimizers and regularizers to improve the accuracy of the model and prevent further overfitting problems.
5. Experiment with other epochs or batch sizes to create greater accuracy and faster execution time.
6. Train and test the dataset with other types of neural networks and compare it to RNN/LSTM.