CHAPTER 6
CONCLUSION

From the result on this project, the highest kernel accuracy on using main dataset are Polynomial kernel in using without stemming experiment with 92,85% and the highest 5-fold, 10-fold, and prediction percentage and kernels are in without undersampling experiment with each of them are 91,50%, 91,63%, and 92,64% with all of them are in RBF kernel. This project prove that Polynomial SVM kernel is good on accuracy evaluation if the experiment contains no stemming. Radial Basis Function (RBF) Support Vector Machine (SVM) kernel is good on 5-fold, 10-fold, and prediction accuracy if the experiment contains no undersampling on it. So, it concluded that the highest accuracy on without stemming experiment percentage is not mean that the predicted, 5-fold, and 10-fold accuracy are in same highest percentage on it. It's because of RBF kernel characteristic focused on the area where the majority of a group are marked with this majority group that decreases analysis error on it compared to linear which only separated with a straight line, polynomial which only separated with a curved line led them to the possibility of analysis error, and sigmoid kernel that only focused on 2 layer input for detection but tended to not focused on borders on each different datas. So, the marked majority group by RBF kernel is how this kernel is the better predicting and analysing sentiment using predicted dataset also in 5-fold and 10-fold accuracy in main dataset.

From this project I made, it concluded that using labelling sentiment on calculating the average with TextBlob library and using SVM algorithm without using undersampling are accurately effective for detecting sentiment using product review opinions if using without undersampling experiment. Using them on predicting product review sentiment automatically are mostly effective to detect the sentiment correctly. So, this program is useful to detecting sentiment on any product reviews.

Although of higher accuracy and predicting on this project, many shortcomings on progress when making the project and study that needs to improved and developed for further study. So hopefully in the future, this project is useful as a sentiment analysis reference to make better development.