

## Table of Contents

I.	Introduction.....	1
I.I.	What is Artificial Intelligence .....	1
I.II.	Artificial Intelligence and Its Impact in Everyday Life.....	3
I.III.	Artificial Intelligence in Business.....	4
I.IV.	Transparent and Explainable Artificial Intelligence .....	4
II.	Literature Review .....	5
II.I.	Artificial Intelligence in Business.....	6
II.II.	Trust in Artificial Intelligence.....	6
II.III.	Ethics in Artificial Intelligence.....	7
III.	Methodology.....	8
III.I.	Data Collection .....	8
III.II.	Creating and Training a Natural Language Processing Model.....	9
III.III.	Implementing the LIME Algorithm to Explain the AI Model .....	13
IV.	Results.....	13
IV.I.	Results of Preliminary Analysis.....	14
IV.II.	Results of Machine Learning and LIME Analysis.....	17
V.	Managerial Recommendation .....	23
V.I.	The Usage of Machine Learning to Obtain Insight.....	23
V.II.	Using Transparency and Explainable AI to Understand the Model .....	24
V.III.	The Importance of Human Input in Machine Learning Model .....	25
V.IV.	Consider Both Insight Obtained from Model and Human Team.....	26
VI.	Conclusion.....	26
VI.I.	Improvement for this research .....	27
VI.II.	Potential topic for research in the future .....	29

## Table of Figure

Figure 1. Definitions of AI (Russel & Norvig, 2016) .....	2
Figure 2. Human and Artificial Intelligence Jobs (Kevin Kelly, 2012) .....	3
Figure 3. Factors of Artificial Intelligence that Affects Trust Building .....	7
Figure 4. Top 20 language by frequency .....	14
Figure 5. Distribution of tweet length .....	15
Figure 6. Tweet length of processed clean data for each sentiment label .....	15
Figure 7. Number of tweets for each sentiment class .....	16
Figure 8. Word Cloud .....	16
Figure 9. Word Cloud without collocation .....	17
Figure 10. First 10 results of the VADER analysis .....	17
Figure 11. Accuracy and classification report for test data .....	18
Figure 12. Confusion matrix for test data .....	19
Figure 13. Classification report for September .....	20
Figure 14. First LIME analysis .....	20
Figure 15. Second LIME analysis .....	21
Figure 16. Third LIME analysis .....	22