

**UNIVERSITI TEKNOLOGI MARA**

**TECHNICAL REPORT**

**PREDICTION OF STOCKS PERFORMANCE IN BURSA  
MALAYSIA USING FUZZY LOGISTIC REGRESSION**

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# TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS .....</b>	<b>ii</b>
<b>TABLE OF CONTENTS .....</b>	<b>iii</b>
<b>LIST OF TABLES .....</b>	<b>v</b>
<b>LIST OF FIGURES .....</b>	<b>v</b>
<b>ABSTRACT .....</b>	<b>vi</b>
<b>CHAPTER 1 .....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.1 Motivation.....	1
1.2 Problem Statement .....	3
1.3 Objectives .....	3
1.4 Significant and Benefit of Study.....	4
1.5 Scope and Limitation of Study.....	4
<b>CHAPTER 2 .....</b>	<b>5</b>
<b>LITERATURE REVIEW .....</b>	<b>5</b>
2.1 Introduction.....	5
2.2 Literature Review/ Related Research.....	5
2.3 Methods for Stock Performance Prediction .....	8
2.4 Fuzzy Logistic Regression .....	13
2.5 Summary .....	14
<b>CHAPTER 3 .....</b>	<b>15</b>
<b>METHODOLOGY AND IMPLEMENTATION.....</b>	<b>15</b>
3.1 Data Collection .....	15
3.2 Independent and Dependent Variables .....	16
3.3 Selection of Financial Ratios .....	17
3.4 Prediction of Stocks Performance.....	18
3.5 Performance Measures .....	20
3.6 Summary .....	21
<b>CHAPTER 4 .....</b>	<b>22</b>
<b>RESULTS AND DISCUSSION .....</b>	<b>22</b>
4.1 Introduction.....	22
4.2 The Critical Financial Ratios .....	22
4.3 Results of Fuzzy Logistic Regression Model .....	23
4.4 Performance Analysis of Fuzzy Logistic Regression Model.....	25
4.5 Summary .....	26
<b>CHAPTER 5 .....</b>	<b>27</b>
<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>27</b>

5.1 Conclusion .....	27
5.2 Recommendation .....	27
<b>REFERENCES.....</b>	<b>29</b>
<b>APPENDIX A .....</b>	<b>32</b>

## **ABSTRACT**

While financial ratios are currently the most well-known method to understand and predict the performance of a firm and their stock, there is a lack of explaining which of those ratios are significant to the prediction. In previous studies, the significance of financial ratios varies with industries and countries, but there were none able to illustrate which of these variables significantly influence the performance of a company. In fact, that logistic regression is suitable for predicting binary outcomes, while stock performance is better expressed linguistically using "very good, good, average, bad, very bad". Thus, this study will help to highlight significant financial ratios that could be used as a guideline for investors to make an informed decision. Multicollinearity test is used to remove financial ratios that are highly correlated to one another, and fuzzy logistic regression is used to predict the stock performance of top 30 companies in Bursa Malaysia. The ratios which were deemed significant was chosen to develop the fuzzy logistic regression model and a comparison between the model and classical logistic regression model was made. It was found that the fuzzy logistic regression model did not out-performed classical logistic regression model in aspects that was measured. This may be due to the small number of observations and the nature of the financial market which is noisy and non-deterministic.