

**UNIVERSITI TEKNOLOGI MARA**

**TECHNICAL REPORT**

**DETERMINING THE FACTORS CONTRIBUTING TO FIRMS'  
DEFAULT USING KMV-MERTON MODEL AND LOGISTIC  
REGRESSION**

**(P19M22)**

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## TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS</b>	<b>i</b>
<b>LIST OF TABLES</b>	<b>iii</b>
<b>LIST OF FIGURES</b>	<b>iii</b>
<b>ABSTRACT</b>	<b>1</b>
<b>CHAPTER 1: INTRODUCTION</b>	<b>2</b>
1.1 Problem Statement	3
1.2 Objectives	3
1.3 Significance and Benefit of the Project	3
1.4 Scope and Limitations of the Project	4
1.5 Definition of terms and abbreviations	5
<b>CHAPTER 2: BACKGROUND THEORY AND LITERATURE REVIEW</b>	<b>6</b>
2.0 Literature Review	6
2.1 Default Risk	6
2.2 KMV Merton Model (default probability)	7
2.3 Credit rating	9
2.4 Quantitative Factors Contributing to Firms' Default	11
2.5 Logistic Regression	12
2.6 Financial Ratios	13
<b>CHAPTER 3: METHODOLOGY AND IMPLEMENTATION</b>	<b>15</b>
3.1 Data Collection	16
3.2 Assessing the Default Probability of firm using KMV-Merton model	16
3.3 Validating the Probability of Default using Credit Rating	17
3.4 Identifying the Factors Contributing to Firms' Default	17
3.4.1 Calculating the Financial Ratios	17
3.4.2 Logistic Regression using SPSS Statistic	18
<b>CHAPTER 4: RESULTS AND DISCUSSION</b>	<b>21</b>
4.1 Default Probabilities using KMV-Merton Model and Credit Ratings	21
4.2 Factors Contribute to Default	23
<b>CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS</b>	<b>26</b>
REFERENCES	27

**LIST OF TABLES**

Table 2.1: Credit Ratings and Interpretation (MARC, 2022)	10
Table 2.2: Historical pattern MARC default rate (MARC, 2020)	11
Table 4.1: The Sample Probability of Default (PD) of Firms (2010 –2020)	21
Table 4.2: Accuracy of Predicted Credit Ratings	22
Table 4.3: Omnibus Test	23
Table 4.4: Model Summary	23
Table 4.5: Hosmer and Lemeshow Test	24
Table 4.6: Contingency Table for Hosmer and Lemeshow Test	24
Table 4.7: Variables in the Equation	25

**LIST OF FIGURES**

Figure 3.1 Conceptual Diagram for Method	15
Figure 3.2	18
Figure 3.3	19
Figure 3.4	19
Figure 3.5	20

## **ABSTRACT**

The COVID-19 pandemic has severely impacted the economy. Many firms in Malaysia were forced to shut down their business. Therefore, it is significant to have an effective risk management. In this study, we assess the default probability of 32 Malaysian companies by employing the KMV-Merton model. The default probability of firms obtained from employing the KMV-Merton model is used in predicting the credit rating of each firm. The predicted credit rating then was compared with the actual credit rating obtained from the MARC website. Based on the comparison, we achieved an accuracy rate of 81.72%. The default probability is then used in the Logistic regression to determine the factors that are highly causing a firm to default. Based on the Logistic regression analysis, the Leverage Ratio is the most significant factor contributing to default. To be specific, the Leverage Ratio used in this study is the DEBT-TO-CAPITAL RATIO. Therefore, the Leverage Ratios are predicted to have a higher impact on default risk. In this study, we also found that the macroeconomic variables such as Inflation Rate and Exchange Rate to have an insignificant effect on the firms' default. It is recommended for future researchers to add more financial ratios to have a more accurate result regarding the significant factors that contribute to the default of a firm.