

**FINANCIAL RATIOS
AS PREDICTOR OF
CORPORATE FINANCIAL DISTRESS**

**(TREND ANALYSIS AND LOGISTIC REGRESSION
APPROACH)**

KHAIRUL ANUAR BIN KAMARUDIN

**A project submitted in partial fulfillment of
the requirement of MARA University of Technology
for a degree of Master of Accountancy.**

November 2000

ABSTRACT

This dissertation examines financial ratios as a tool of predicting financial distress. The classical Beaver (univariate model) and Altman (multivariate model) are tested in this research on Malaysian environment. In doing so, the dissertation discloses the response of Altman and Beaver towards economic recession. The empirical method covers the period 1990-8. From generated Z-Score and Beaver ratio, the patterns show that both models respond very well during economic recession. However, the trend analysis conducted in this study failed to detect any early signals of financial distress.

The results from the logistic regression approach confirmed the conclusion made for trend analysis. Majority of the financial ratios in Altman model are insignificant in predicting financial distress in the last three years before the economic recession. The insignificance of the financial ratios in Altman model do not totally reject the model but *calls for new coefficient and more appropriate ratios in future research.*

ACKNOWLEDGEMENT

I am greatly indebted to Dr. Muhd Kamil Ibrahim whose excellence in supervision and devotion to research has inspired my work. Without his untiring assistance, direction, encouragement, comments, suggestions, and constructive criticisms throughout this study, this research could not be completed. He provided a continual source of intellectual stimulation and motivation, which will extend beyond this study. It has been an honorable experience working with him.

Special thanks to Professor Dr. Juhari Samidi, whose dedication and constant encouragement have made the unachievable possible. I would also like to extend my gratitude to Y.M. Raja Omar Raja Yaacob, who instilled a strong background in theoretical and technical aspects of accounting in me during my early stages of study.

I wish to express my deepest gratitude to Miss Wan Adibah Wan Ismail, who spared her valuable time and commitment, particularly during data collection and data analysis. Without her constant support and patience, my dissertation would have been a difficult journey. I would also like to thank Encik Shukri Shamsudin, Senior Lecturer of Statistics, for providing guidance particularly in conducting logistic regression test.

I dedicate this research to my mother, my father Kamarudin Bin Mat Saman and my brothers and sisters, Kamsinah, Shafinah, Izatul Roslina, Mohd Azlan and Mohd Firdaus. Beyond a simple thank you, I want them to know that I love them all very dearly.

Last but not least, I would like to thank the academic staffs of MARA University of Technology who had taught and guided me during my course of study.

TABLE OF CONTENTS

	Page
Preface : Abstract	iii
Acknowledgement	iv
List of Tables	v
List of Figures	vi
List of Appendices	vii
CHAPTER 1 : INTRODUCTION	
1.1 Introduction	1
1.2 The Focal Issues	2
1.3 Objectives of Study	4
1.4 Theoretical Model	5
1.5 Main Empirical Result	7
1.6 Summary Outlines of the Thesis	8
CHAPTER 2 : LITERATURE REVIEW	
2.1 Introduction	9
2.2. Concept and Definitions of Financial Distress	10
2.3 Stages of a Business Failure	12
2.4 Financial Ratios as Bankruptcy Predictor	14
2.5 Multivariate Models	20
2.6 Univariate Model	28
2.7 Prediction of Bankruptcy Non Financial Variables	30

CHAPTER ONE INTRODUCTION

1.1 INTRODUCTION

The recent economic downturn witnessed many businesses and individuals struggling with financial distress. The problems did not only occur to small and medium size businesses but also to listed companies, which are related to construction, industrial, and investment as well as financial institutions.

During the recession, some of the companies took some serious measures by retrenching their staff and downsizing the business. This was a sign that the companies were facing financial distress. As discussed by Graham *et al.* (1999), other than going into liquidation, a financially distressed firm can experience several things such as: -

- i. Managers and employees lose their jobs,
- ii. Arguments between claimant which often delay the liquidation of asset, and
- iii. Lawyers' fees, court costs and administrative expenses can absorb a large part of firm values.

Li and Li (1999) described financial distress as a situation where a firm faces two difficulties. First, the firm's cash flows are insufficient to cover current obligations to creditors. Thus, creditors have legal rights to demand restructuring because their contract with the firm has been breached. Second, the expected present value of the firm (based on available information to the financial market at the beginning of financial distress) is below the outstanding debt level. This means that it is impossible to issue new securities to overcome the current financial difficulty.

The government also had to intervene in order to overcome the problems. According to Dewan Ekonomi (November 1999) the Malaysian government had spent not less than