

## CHAPTER 1

### INTRODUCTION

### FINANCIAL DISTRESS

Financial distress in broad terms covers the situation from a vague uneasiness about future profitability to complete disintegration of the firm. It could be defined in various terms which include business failure, technical insolvency, economic failure, insolvency in bankruptcy and legal bankruptcy.

Business failure implies to any business that has terminated operations with a resultant loss to creditors. Technical insolvency on the other hand applies to a firm that cannot meet its current obligation as they fall due. An example of such is a temporary lack of liquidity. Economic failure, in an economic sense is a situation where a firm's revenue do not cover its total costs, including its cost of capital. A firm is said to be insolvent in bankruptcy when the true market value of its assets is less than the book value of total liabilities. Legal bankruptcy situation arises only when a firm file for bankruptcy under the relevant legislation.

Corporate failure is found to be most common among the small, undercapitalized entity, however large industrial and financial corporations are not immune to it.

### TRADITIONAL RATIO ANALYSIS

Prior to the development of quantitative measure of company performance, agencies were established to supply a quantitative type of information assessing the credit-worthiness of particular merchants. The detection of company operating under financial difficulties is a subject which has been particularly susceptible to financial ratio analysis. It was in the 1930's that formal aggregate studies concerned with portents of business failure became evident. A study at the time and several later ones concluded that failing firms exhibit significantly different ratio measurement than continuing entities. Also another study was conducted using

ratios of large asset-size corporations that experienced difficulties in meeting their fixed indebtedness obligations. A study by Beaver involved the analysis of financial ratios in a bankruptcy prediction context. In this latter study a comparison was made for a list of ratios individually for failed firms and a matched sample of non-failed firms. The ratio pattern was observed for five years prior to failing and thus a conclusion was drawn that ratio analysis can be useful in the prediction of failure. The aforementioned studies substantiate the potential of ratios as predictors of bankruptcy. In general, ratios measuring profitability, liquidity, and solvency prevailed as the most significant indicators. However the order of their importance is not clear since almost every study cited a different ratio as being the most effective indication of impending problems.

## **OBJECTIVE OF STUDY**

The specific research objectives of the study is stated as follows:

To develop a model (discriminant function) for Malaysia which could be used to predict the possibility of bankruptcy or non-bankruptcy of Industrial companies listed under Kuala Lumpur stock exchange (KLSE). This will be a linear composite of the predictor variables (i.e financial ratios) that enables the separation of the groups by maximizing among-groups relative to within-groups variation. At this stage, historical data for a sample of firms that either went bankrupt or that is doing well during some past period will be used.

## **IMPORTANCE OF STUDY**

Bankruptcy or even the possibility of bankruptcy, can cause significant trauma for a firm's managers, investors, suppliers, customers and community at large. Thus, the benefit in being able to predict the possibility of bankruptcy so that steps could be taken to avoid it or at least reduce its impact cannot be over emphasized. It is hoped that a knowledge of this early warning model may help obviate the consequences or reduce the number of these failures in Malaysian Industrial companies.

Business failure identification and early warnings of impending financial crises are important not only to analysts and practitioners in Malaysia. Indeed, countries throughout the world, even non capitalist nations are concerned with individual entity performance assessment. Developing countries and smaller economies, as well as the large industrial nations of the world, are vitally concerned with avoiding financial crisis in the private and public sectors. Smaller nations are particularly vulnerable to financial panics resulting from failures of individual entities.

Similar studies has been undertaken in several of the major countries in the world, notably The United States, Brazil, France, Canada and Australia. Some studies has also been conducted in Japan, West Germany, Switzerland, Holland, England and Ireland. Ever since the late 1960s, the established methodology has been to classify and predict bankruptcy by combining traditional financial analysis techniques with vigorous statistical procedures. Essentially analysts have attempted to build early warning systems for this negative but extremely important event. Among the reasons for constructing and implementing bankruptcy prediction models are as follows:

1. Credit analysis for financial institutions and firms.
2. Investment analysis for capital market participants
3. Audit risk analysis for accounting firms.
4. Various diverse applications such as loan guarantees, government subsidy programs, and merger analysis.

These reasons are explained in detail below.

Most of the applications in credit analysis are primarily related to the operations of financial institutions which have a large number of loan requests and portfolio clients that need to be evaluated quickly and effectively. The objective is to determine the repayment probability of a potential or existing customer, to assist in the accept-reject decision and the pricing policy, as well as the loan review evaluation. A related application is in the accounts receivable management function of a firm providing goods and services. In this case, the optimal decision criterion should be to extend credit up to the point at which the marginal expected return from the lowest credit risk is equal to the marginal expected loss from taking on the account. Marginal return and losses are a function of pricing (interest rates and loans) and costs of default or delinquency on outstanding credits. The expected return variable is derived from the probability of failure or nonrepayment and its inverse, the probability of success repayment, hence the significant importance of techniques that seek to quantify failure probabilities.

The reorganization evaluation process is critical to the debtor, as well as an important determinant of the potential investment opportunities for those interested in bankrupt securities. The trick is to determine which firms are likely candidates for a successful reorganization and then to wait a period of time after the petition date to purchase appropriate securities. It was found that the price of bankrupt firm equities fall on average 25% from one month before failure to one month after failure. This was measured for a sample of almost 100 securities (Altman 1969). This drop in price known as bankruptcy information effect, implies that the market was not totally anticipating the bankruptcy or the price would have been fully discounted.

In the event of a substantial likelihood that a firm will no longer be operating as a continuing entity, the auditor is obliged to state this contingency in the opinion attached to the audit financial statements. This is the issue known as the auditors responsibilities towards going-concern qualifications. This is one of the most contravasioal issues in accounting profession. However regardless of the position accountants take towards the future viability of their clients, both existing and potential ones, the value of an early warning failure system is obvious.

Other applications for failure models include

1. Criteria for loan guarantees or other subsidy programs
2. Merger target analysis
3. Bond rating analysis.

In all cases, the aim is to assess crediworthiness and insolvency risk in such a manner as to objectively analyze opportunities and risks.

## **ORGANISATION OF THE STUDY**

This dissertation is organised into five chapters. Chapter 1 introduces the various definitions of financial stress and also a background on ratio analysis. The objectives of the study and the importance of the study to different works of life are outlined. In chapter 2 we discuss the legal bankruptcy process in the Malaysian context and also review previous research on predictions of failure in firms. Chapter 3 describes the research methodology used for this study. Chapter4 highlight the results of the study and Chapter 5 contains the major conclusion of this study and suggestions for future research in the area.