

CHAPTER 1 – INTRODUCTION

As the role of financial markets become increasingly important, research in the area of corporate failure prediction has been very popular among academics and practitioners. This is to prevent shocks to financial markets due to excessive non-performing loans. Two main approaches in bankruptcy prediction studies have been widely used. The most often used method is empirical search for predictors (financial ratios) that has lowest misclassification rates. The second approach concentrates on the search for statistical methods that would also lead to improved prediction accuracy.

During the onset of research on bankruptcy failure prediction, the values of financial ratios in failed and non-failed firms were compared with one another and it was found that failed firms had poorer financial ratios. In 1966, the pioneering study of Beaver presented the univariate approach of discriminant analysis and in 1968, Altman expanded this analysis to multivariate analysis. Discriminant analysis has been the dominant method in failure prediction till the 1980s. In the 1980s, the discriminant method was replaced by logistic analysis, which until the 1990s, has been the most commonly used statistical model for failure prediction.

Property has been at the heart of development in Malaysia over the last few decades due to economic development, urbanization trend and increasing population. Speculative activities in the property sector reached its pinnacle in the 1990s when locals and foreigners were competing to buy properties, raising prices by 50 to 100 percent in choice locations.

The strong property demand and escalating property prices in the 1990s' prompted many banks to lend aggressively to the property sector. "End-financing" or loans extended to house buyers were regarded as close to zero risk to bankers as house prices and household income continued to increase. Bridging loans to finance new property development projects were also a good source of loan income to facilitate the expansion of the financial sector.

Predicting corporate failure among property development firms is an interesting study because property demand depends largely on changes in economic conditions. In addition, the changes in Bank Negara's policies and changes in interest rates have a significant impact on property companies as they have high bank borrowings and most of the loans in the banking sector are secured by properties. As such, the health of the property sector has indirect implications on the economy, especially the banking sector.

In 1998, 36 percent of the financial sector's total loans came from the broad property sector (see Table 1.1). The data reflects the banks' continued reliance on collateral-based loans as opposed to loans granted on the basis of project viability. It also reflects the banks' lack of expertise in risk management. The financial turbulence highlighted the importance of developing an early warning system to mitigate the incidence of corporate failure among Malaysian firms involved in property development.

Table 1.1 - Exposure of Banks To Various Sectors In 1998

SECTOR	RM' billion
Agriculture	6.2
Mining & quarrying	1.2
Manufacturing	56.5
Electricity, gas & water	5.1
Broad property sector	108.8
Real estate	30.7
Construction	43.4
Purchase of residential property	23.1
Purchase of non-residential property	11.6
Wholesale & retail, restaurant and hotels	30.3
Transport, storage & communications	11.4
Finance, insurance & business services	30.3
Purchase of securities	19.4
Consumption credit	17.1
Others	13.0
Total	299.3

Source: Malaysia Property Market Reports 1998

Most failure prediction studies do not include factors, which are specific to a particular industry. The primary objective of this study is the development and testing of insolvency prediction models for Malaysian listed companies involved in property development. Interest in this study arises as many public listed companies that were involved in property development went into financial difficulties during the 1997/1998 financial crisis in Malaysia. Although the weak macroeconomic environment led to the poor performance of the property companies, failure of these companies were also largely due to microeconomic factors such as inadequate diversification strategy, heavy reliance on speculative property buying interests, over borrowing and mismanagement of projects.

This paper seeks to quantify risk faced by property companies and provides a benchmark for companies to achieve healthy financials to avoid becoming insolvent. This study focuses on logistic regression technique because they are used in most empirical failure prediction studies. Another reason for adopting logistic regression technique is because it

is difficult to validate neural and genetic algorithm model as they are based on “inductive learning”, which is a learning process based on examples.

This study examines financial ratios as well as additional industry specific factors such as development mix, hotel development, and Bumiputera ownership and firm size to predict corporate failure for Kuala Lumpur Stock Exchange (KLSE)-listed companies involved in property development.

The flow of this study is as follows. Chapter 2 details the literature review. Chapter 3 - the property industry in Malaysia and what happened to the property industry during the 1997/1998 financial crisis. Chapter 4 and Chapter 5 present the research methodology and the empirical results. Conclusion is presented in Chapter 6.