CHAPTER 6 - CONCLUSION

The main objective of this study was the development of a bankruptcy prediction model for firms involved in property development in Malaysia. Several researchers attempted to develop failure prediction models but most of them used data from the United States that may not be applicable due to differing accounting practices. Most of the failure prediction studies focus on a particular region such as country specific or are based on status of development such as developed and developing countries, but not sub-sectors within an economy. There is a need for a bankruptcy prediction model to predict the failure of companies involved in property development in Malaysia as the health of the property sector has indirect implications on the economy, especially the banking sector, which has significant exposure to the property sector.

The data set includes a sample of 78 companies that are involved in property development throughout 1995-1998, consisting failed and non-failed companies listed on the KLSE. A model consisting of three variables (a cashflow ratio, gearing, and operating leverage) and a dummy variable representing firms' exposure to the commercial property sector was developed based on a univariate and subsequently multivariate logistic regression analysis. The results indicate that cashflow, total debt and operating leverage play an important role in predicting failure, and so does a firm's exposure to commercial property. Historically, in Malaysia, a boom in the commercial property segment precedes a property cycle bust, which explains why companies that have higher exposure to commercial property have higher probabilities of failure.

This research is aimed to provide an early sign of corporate failure, whereby the model correctly classifies 69.49 percent of firms three years prior to bankruptcy. The most accurate classification is two years prior to bankruptcy, whereby the model correctly classifies 73.15 percent of firms.

As with most bankruptcy models, this model has its own weaknesses. The first weakness of the research is that the sample period only ranges from 1995 to 1998, and does not cover previous property cycles such as the one in the 1980s. Future research could expand on this study since no two property cycles are the same. The second weakness is that the model's accuracy is not tested on companies from other countries. Once again, future research could expand on this study to include foreign countries, especially the South East Asian region because of similarities in management style and operating conditions. The final weakness of the model is that by using exposure to commercial property as a variable, this limits bankruptcy prediction to boom cycles led by the commercial property sector. What if the property sector's bubble was due to a boom in for instance the residential property segment, the model might not be able to accurately predict bankruptcy. However, the residential sub-sector boom is not likely to impact property companies significantly, as risk is spread among many individual house buyers.

Who are the beneficiaries of the bankruptcy prediction model? Firstly, owners of property companies can use the model as a self-monitoring tool to avoid bankruptcy. Secondly, financial institutions can use the model either to pre-screen borrowers, or as a supplementary tool in credit or loan evaluation, or to monitor borrowers (property companies only) on a periodic basis. Thirdly, stock market investors, both individual and institutional ones, will benefit from the bankruptcy prediction model to pre-screen

companies to be included in their asset allocation. Finally, house buyers will indirectly benefit, allowing them to select property developers that are least likely to become bankrupt.

The bankruptcy prediction model has important policy implications. It allows regulators, especially the Kuala Lumpur Stock Exchange to regulate its members. For example, currently, companies under financial distress that have negative shareholders' funds are classified as Practice Note 4 (PN Note 4) companies. These companies are placed under trading restrictions and are given a specific timeframe to regularise their financial position. Applying the bankruptcy prediction model to specifically the property sector, the KLSE could impose conditions that:- 1) only property companies with a score of say $P_{jt}(Y=1) < 0.5$ can remain listed, or 2) only property companies with a score of say $P_{jt}(Y=1) < 0.5$ can seek an Initial Public Offering (IPO). In addition, the Securities commission can also use the model in the same way to approve IPO applications as well as merger and takeovers of property companies.