

# ACCURACY OF BANKRUPTCY PREDICTION MODELS IN PREDICTING DELISTING COMPANIES IN SRI LANKA

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## 1. Introduction

This study aims to investigate the validity of Altman's Z''-score model and Zmijewski's X-score model in predicting delisting companies in Sri Lanka. Although the two models have been frequently tested for assessing financial distress, their effectiveness in predicting delisting is under-researched.

## 2. Research Methodology

Considering the data availability, 18 delisted companies were selected as the sample of delisted companies and data was collected two years before the company was delisted. For comparison purposes, 18 non-manufacturing listed companies were also selected based on highest market capitalization, considering their unlikeliness to go delisted soon. According to that, the sample size of this study is 72 observations (according to the purposive sampling technique) taken from the company's financial statements.

## 3. Findings and Discussion

The results showed that the revised Altman's Z-score model has the highest accuracy rate of 69.45%. Meanwhile, the Zmijewski X-model has a lower accuracy rate of 63.89%. The Chi-square model's results indicate a relationship between Altman's Z''-score model and the delisting status of the companies, but no relationship between the Zmijewski X-score model and delisting. Additionally, Altman's Z''-score model is more accurate in predicting delisting than the Zmijewski X-model. These findings are consistent with Rachmania (2016), who identified that only modified Altman Z'-score effectively predicts delisting. In contrast, Mila Fatmawati (2012) showed that only the Zmijewski model effectively predicts delisting during the observed period.

## 4. Conclusion and Implications

Revised Altman's Z''-score model has a higher accuracy rate compared to the Zmijewski model, while Zmijewski's model tends to misclassify delisted firms into non-delisted. According to the chi-squared test results, there is a relationship between the revised Altman's Z''-score model and the delisting. Therefore, the researchers recommend that a revised Altman's Z''-score model be used to predict delisting companies in the Sri Lankan context.

**Keywords:** Altman's Z''-score model, Bankruptcy, Delisting, Financial distress, Zmijewski X-score model.