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Validation and Re-Estimation of Altman's Z''-Score Model for Financial Distress Prediction in Financial Institutions of Pakistan

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Validation and Re-Estimation of Altman's Z"-Score Model for Financial Distress Prediction in Financial Institutions of Pakistan

Abstract

Validity and re-estimation of the Altman's Z-Score model in order to forecast the financial distress of the Pakistani financial institutions is being done in this research study. The primary purpose is to determine whether the first Z-Score model can accurately predict the financial distress of institutions in the Pakistani banking industry in the first place. In order to develop a re-estimated model that will be better suited to the financial environment of the region, it has to be empirically tested first. The secondary financial data obtained from certain financial institutions of Pakistan over a fixed period of time was considered the basis of the study. The modified Z-Score was determined by utilizing various financial variables, which were collected from the financial statements and were related to profitability, leverage, and retained earnings. The new structure of the model was developed considering the removal of the working capital factor owing to the unique nature of the bank balance sheet. The application of descriptive statistics, correlation, and multiple regression techniques is involved in the model evaluation process.

Empirical results reveal that the problem of financial distress among the financial organizations in Pakistan has been influenced by variables that are associated with profitability and solvency. According to the results, while the basic Altman Z-score approach has a relatively good prediction capability, re-estimating it based on country specific data increases its accuracy significantly.In addition, this study contributes to the existing literature through a localized validation of the Altman Z-Score approach in the context of a developing country. Moreover, the study develops a new, re-estimated model that can predict future events more reliably within the Pakistani financial sector. This study's findings have substantial implications for financial managers and investors seeking early indicators of financial distress, as well as for regulators, notably the State Bank of Pakistan.

In conclusion, this study highlights the importance of continued model validation in varying financial environments, along with the necessity of adapting international financial prediction models to local economic conditions.

Keywords: Financial Distress, Altman Z"-Score, Banking Sector, Pakistan, Bankruptcy Prediction, Model Re-estimation, Financial Ratios.