

ABSTRAK

RUT RATU ROSARIO. *Deteksi Pengukuran Financial Distress Model Altman Z-Score, Zmijewski, dan Ohlson Analisis Deskriptif Eksploratif Komparatif Perusahaan Terbuka Sektor Energi, Pertanian, dan Perkebunan Di Indonesia Tahun 2020-2025*. Dibimbing oleh Dr. Hendra Agustinus H. Marbun, S.E., M.Si., Ak., CA

Penelitian ini bertujuan menganalisis dan membandingkan kemampuan Model Altman Z-Score, Zmijewski, dan Ohlson dalam mendeteksi *financial distress* pada perusahaan sektor energi dan pertanian yang terdaftar di Bursa Efek Indonesia periode 2020–2025 serta mengevaluasi kinerjanya berdasarkan nilai *cut-off*. Penelitian menggunakan metode kuantitatif deskriptif dengan pendekatan komparatif. Data sekunder diperoleh dari laporan keuangan tahunan konsolidasian yang telah diaudit. Dengan *purposive sampling*, diperoleh 109 perusahaan dan 654 observasi. Analisis dilakukan menggunakan skor model, klasifikasi *financial distress*, *confusion matrix*, sensitivitas, spesifisitas, *precision*, F1-Score, ROC, dan AUC. Hasil menunjukkan bahwa kinerja model berbeda berdasarkan kondisi aktual. Pada Kondisi Aktual I, Altman menunjukkan kinerja relatif seimbang dengan *Overall Accuracy* 77,98%, sensitivitas 76,62%, spesifisitas 78,99%, dan F1-Score 74,74%. Pada Kondisi Aktual II, Zmijewski memiliki *Overall Accuracy* 86,61% dan spesifisitas 91,70%, sedangkan Altman memiliki sensitivitas tertinggi sebesar 90,67%. Ohlson cenderung memiliki sensitivitas rendah. Analisis ROC dan AUC menunjukkan Altman memiliki kemampuan diskriminasi relatif lebih kuat. Dengan demikian, tidak terdapat satu model yang unggul pada seluruh kondisi. Altman lebih sesuai untuk deteksi dini *financial distress*, sedangkan Zmijewski dapat digunakan sebagai pembanding untuk menyeimbangkan identifikasi *distress* dan *non-distress*. Pemilihan model perlu disesuaikan dengan tujuan analisis dan kondisi aktual perusahaan.

Kata kunci: *financial distress*, Altman Z-Score, Zmijewski, Ohlson, ROC, AUC

ABSTRACT

RUT RATU ROSARIO. *Detection and Measurement of Financial Distress Using the Altman Z-Score, Zmijewski, and Ohlson Models: A Comparative, Exploratory, and Descriptive Analysis of Publicly Traded Companies in the Energy, Agriculture, and Plantation Sectors in Indonesia (2020–2025)*. Dibimbing oleh Dr. Hendra Agustinus H. Marbun, S.E., M.Si., Ak., CA

This study aims to analyze and compare the ability of the Altman Z-Score, Zmijewski, and Ohlson models to detect financial distress in energy and agricultural sector companies listed on the Indonesia Stock Exchange during 2020–2025 and to evaluate their performance based on the cut-off values. This study employs a descriptive quantitative method with a comparative approach. Secondary data were obtained from audited consolidated annual financial statements. Using purposive sampling, 109 companies with 654 observations were selected. The analysis employed model scores, financial distress classification, confusion matrix, sensitivity, specificity, precision, F1-Score, ROC, and AUC. The results show that model performance varies across the actual conditions. Under Actual Condition I, the Altman model demonstrated relatively balanced performance, with an Overall Accuracy of 77.98%, sensitivity of 76.62%, specificity of 78.99%, and F1-Score of 74.74%. Under Actual Condition II, the Zmijewski model achieved an Overall Accuracy of 86.61% and specificity of 91.70%, while Altman recorded the highest sensitivity at 90.67%. The Ohlson model tended to have low sensitivity. ROC and AUC analysis indicated that Altman had relatively stronger discriminatory ability. Therefore, no single model outperformed the others under all conditions. Altman is more suitable for early detection of financial distress, while Zmijewski can serve as a comparison model when a balance between identifying distress and non-distress is required. Model selection should be adjusted to the analytical objective and the company's actual condition.

Keywords: financial distress, Altman Z-Score, Zmijewski, Ohlson, ROC, AUC