Predicting Industrial Companies Financial Failure using Sherrod and Zmijewski Models - Analytical Study

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Abstract

One of the most critical problems that may face industrial companies listed at Amman Stock Exchange (ASE) in Jordan is the problem of financial failure. The study focuses on the application of two financial failure prediction models, namely: B-Sherrod model and the Zmijewski model. The study also tests these models' predictability power. The study is applied from different perspectives: as it will be first applied to industrial companies listed in the first and second market, then it will be applied to companies listed on the third market – OTC. Finally, the models will be applied to companies that are bankrupted to test the two models' predictability power. The analysis will be conducted for the period 2015 – 2019, based on the financial data published on the ASE website.

The model's application results are as follows: After applying the Zmijewski model to the companies listed in the first and second market, their financial position was sound (the possibility of bankruptcy is weak), while in the third market (OTC), some of the sample companies were in an improper financial position and were facing financial distress, which might lead to the risk of bankruptcy. These results were the same when the B-Sherrod model was applied. This indicates that both models' results are consistent. Regarding the predictability power as both models have the same predictability power. Based on the above results, the study recommends the need for companies’ management to use financial failure prediction models to adopt precautionary measures to avoid any financial distress that may lead to bankruptcy, and the need to use financial ratios analysis to evaluate the company's financial position.

Key words: Financial Failure, B-Sherrod Model, Zmijewski Model, Bankruptcy, Industrial companies.