Predicting Corporate Bankruptcy Using Altman Z'-Score and Ratio Analysis in The Manufacturing Sector: Evidence from The Italian Case*

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Abstract

Altman Z-score has been subjected to many revisions over the years. However, it is not free from criticalities and practical inefficiencies, especially in relation to the financial ratios which characterize the basic structure of the Score itself. The purposes of this study are to verify the effectiveness of the Z'-Score in the Italian manufacturing sector and to verify if the model is influenced by the unlawful practices that managers put in place to hide the signs of insolvency before its external manifestation. Using discriminant analysis and a sample of 30 "unhealthy" companies and a control sample of 30 "healthy" companies, this exploratory research aims to check if in the Italian case the situation arises for which a negative Z'-score does not often correspond to a situation of financial distress shown by the Net Working Capital to Total Assets ratio, that is the first variable in the Z'-Score formula. The results show that, in most of the cases, a high positive ratio does not correspond to a "healthy" business situation, especially due to the management's incentive to cheat. The main limitation of the research can be seen in the small number of companies considered. The study, however, lays the foundations for future research on the subject, offering food for thought for management and ideas for the academic world.

Keywords: Z-Score; Bankruptcy; Prediction models; Net Working Capital to Total Assets.

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