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THE INTERRELATIONSHIP BETWEEN DIFFERENT PERFORMANCE ESTIMATES

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Abstract. The main purpose of the study is to investigate the interrelationship of the following four performance estimates: Technical efficiency, by using Data Envelopment Analysis; financial soundness, by using Altman's revised Z²(EM)-model for emerging markets; financial ratios, using return on equity as an internal measure; and price/book value as an external measure. Annual financial statement data were used in two samples for 55 manufacturing companies listed on the JSE Limited (Johannesburg Stock Exchange) over a six-year period in a cross-sectional analysis. The study found that only the relationship between technical efficiency and return on equity was significant for all six years under review for both samples. The study concluded that no single performance estimate is able to replace all the other estimates. Further research should be done to determine which of these estimates provide the most sensible and accurate information to managers.

JEL Classification: C670, G100, M410

Keywords: Data Envelopment Analysis, Altman's model, return on equity, price/book value

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