

Identifying Key Predictors of Default for Indian Companies using Cox Regression

Vandana Gupta

Associate Professor

FORE School of Management

New Delhi – 110016

e-mail: vandana@fsm.ac.in

Abstract

The paper looks at identifying key predictors for financial distress amongst companies in India before the event of default. The paper depends on survival analysis technique to model the duration of time that preceded a firm's initial payment default. Using cox regression (proportional hazard model- a model of survival analysis), it estimates the impact of covariates such as various financial ratios, macro-economic variables, and firm size and age in survival power over financial distress. The variables to indicate each of these factors are identified in the paper. The author used these factors (with identified variables) to estimate their impact value for default on a sample of 1049 companies rated and classified as defaulted and solvent by CRISIL over a period 2004-2014. The research adds to the existing literature of default prediction by examining the 'time to default' as an integral factor in examining financial distress risk. The empirical findings provide evidence on the significance of profitability, liquidity and solvency ratios as key predictors of default along with some macro-variables. Financial distress prediction models are therefore required to act as a predictor of companies' well-being prior to a financial crisis and to gauge the warning signals of the onset of a downturn.

Key Words: Financial distress, Survival analysis, Cox proportional hazard, Predictors, Ratios
JEL Classification: C 41, G14, G32, G33.

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