

THE FAILURE MODELS ARE USING MULTIPLE DISCRIMINANT ANALYSIS

In modern conditions, the legislation on bankruptcy of the enterprises does not reflect a real status of the Russian industry. Essential requirement is the determination of real criteria showing the current status of business in the Russian companies. There are no statistical data on industries allowing to evaluate a financial status of the company and to generate normative parameters for orientation of the companies and state bodies, responsible for financial improvement.

In the modern legislation in appendix ¹ 1 the Governmental Law of the Russian Federation of May 20, 1994 ¹ 498 the ratios system for determination business failure are given.

According to this Law the company is considered to be a bankrupt, if Current Ratio > 2 , this condition is impracticable for the majority of the Russian companies.

In global practice it is accepted to use normative factors. However, we do not have necessary statistical base in our country. Otherwise we might deem that more than a half of companies, acting and responsible for their obligations are bankrupts according to App. ¹ 498.

The creation of the Databank will be beneficial both for shareholders, and financial managers of the companies. The state bodies will receive required criteria for financial diagnostics of the companies that is multiple predictors of business failure.

This problem is actual for bank's credit department too. The significant working condition of a credit department is the estimation of financial results of a company applying for reception of the credit. In our country the majority of the companies only begin to form a credit history.

The presence of the company's financial statements at our Databank gives a credit organization an opportunity to evaluate a financial status of the prospective borrower with the help of the complex parameter.

The similar bases and normative parameters exist in many countries.

Empirical studies have been undertaken to determine the extent to which financial ratios can be used to predict corporate failure. The ability to predict corporate failure is important from the investor's viewpoint and from a social perspective, and an early warning system would allow investors and management to take preventive actions. Both univariate and multivariate (Altman) approaches have been used to predict corporate failure and essentially these analyses are capable of saying whether a company exhibits characteristics similar to companies which have failed in the past without being able to determine whether a particular company is going to fail.

Altman (1968-1983) determined multiple predictors of business failure using multiple discriminant analysis for the development of a linear function which purported to predict corporate failure. The 'Z' score selected five (out of 22 utilised in the research) financial ratios for his final discriminant function. The ratios and weighting were derived from an empirical study of the US companies. The effectiveness of the 'Z' score in predicting corporate failure declined when used on data other than that used in the empirical study.

The models which predict corporate failure from financial statement suffer from the underlying weakness of a lack of comparability of financial statements. Also managers may start creative accounting practices when they realise that their company is having problems. It is unlikely that corporate failure can be predicted on the basis of a univariate or multivariate model along.

The accounting ratios used by researchers are based on historic information but ideally prospective information is likely to be more useful in predicting corporate failure. Historic information is often published too late to be of use in determining the going concern status of companies and contains information which has 'mixed values' in as much that some items will be at net replacement cost, others will be at historic cost and some items at current value.

The underlying theory behind the models is suspect and little attempt has been made to explain the logic of the models. As a result confidence in the models varies and their ability to predict corporate failure has been undermined. The ability of the models to predict the time-scale of the failure has been criticised. The models were developed in the 1960s, 70s and 80s when business transactions and the sophistication of accounting techniques were different of those of the current generation of companies. Therefore, the application of 'Z' scores to the current business environment may be unrealistic. Additionally these models do not take account of inflation in their calculations.

Despite the criticisms of multivariate analyses they are used by banks to analyse credit risk, by companies to monitor credit worthiness and audit firms in their analytical review procedures. However, they are not used in isolation but are utilised alongside other information about a company.

We suppose to solve the following problems:

- To collect a Databank of the financial report of the large industrial enterprises of Saint-Petersburg. The enterprises should be divided according to the size and kind of activity.
- To trace required parameters of activity of the enterprises. To supply availability of this information to the financial managers of the enterprises, shareholders and other persons concerned.
- To develop a linear function which purported to predict corporate failure. The "Z" score should be selected five financial ratios for the final discriminant function.