ABSTRACT

HILDA YOHANA. The Risk Analysis of Bussiness Credit with Survival Analysis. Under direction of HARI WIJAYANTO, and I MADE SUMERTAJAYA.

Nonperforming loans are credit risks faced by each bank which provide credit services. The Bank implementing Credit Scoring methods in testing the customer worthiness to minimize credit risk. In general, Credit Scoring is a method of credit risk analysis aimed to assess and differentiate level of credit risk. In the field of statistics, some analysis methods commonly used to distinguish this level of credit risk including discriminant analysis, logistic regression, artificial neural networks and regression trees. Observational data, used in such methods, is the complete data or data that do not contain censored observations. Statistical method which handles problems, such as censored data is called Survival Analysis. Survival analysis is using Cox regression to identify characteristics of customers who are at risk of default, loan repayment term durability, as well as the chance the customer will experience the risk of default. In this study, characteristics that are significantly affect a credit crunch on the third business scale is gender ($X_1$), interest rate ($X_2$), type of interest rates ($X_3$), Return on Asset ($X_{45}$) and business reputation ($X_{53}$). Based on the value of its hazard ratio, gender differences and the interest rate is an indicator that gives customers the greatest influence in determining the level of a one's credit failure.

Keywords: credit risk, credit scoring, survival analysis, Cox regression model