SUMMARY

ANDI SETIAWAN. Behaviour Scoring Modeling in Consumer Financing Business Using Survival Analysis (Case Study. PT.XYZ Bogor). Supervised by HERMANTO SIREGAR and TUBAGUS NA MAULANA

Tight Competition in financial service industry makes the company is more difficult to achieve sales target. Company loosen the credit policy in order to achieve the sales. This Policy impact on increasing of credit risk. PT. XYZ as a financial service company has to manage the credit risk to effectively minimize non performing loan. Account management is a critical process to minimize risk of default with low cost. Behaviour scoring is one of the effective tools of account management. Behaviour scoring use for segmenting borrowers based on probability of default during loan period. Behaviour scoring is the first step to prevent default with information of probability of default in each age of loan. The research aims to identify variables that have significant influence on the credit risk, to measure the potential of credit risk based on behaviour scoring model, and to develop effective and efficient account management strategies.

Probability of default is predicted with behaviour scoring model using survival analysis. Behaviour scoring uses survival analysis with proportional hazard Cox regression model. This research proposes combination of time dependent covariates and static covariate in cox proportional hazard model. Definition of default in this research is that if the borrower ever overdue more than 60 days or having seizure of collateral.

Delinquency, down payment, installment to income ratio, and balance are statistically significant default predictor in behaviour scoring model. Effective and efficient account management strategies will develop based on behaviour scoring model. Simulation result of behaviour scoring model implementation show reducing non performing loan and operational cost.

Key words: Cox proportional hazard, credit risk, financial service, non perfoming loan, survival