

Survival analysis of loan repayment rate of customers of Hawassa district commercial bank

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The reviews of the balance sheet of commercial banks in Ethiopia showed that, loan item constitutes the largest portion of bank's assets. It also possesses the highest rate of profit relative to other alternative investments. While it is highly profitable, it also possesses the greatest risk. Such problems usually springs from loans that have become uncollectible due to mismanagement, illegal manipulation of loans, misguided lending policies. Identifying factors will contribute greatly in lifting-up the loan repayment rate of banks. A sample of 182 customers, who took loan from October, 2005 to April, 2012 was taken from the bank record. To model the survival repayment time as well as examine the association between the survival time with different demographic and loan characteristics variables, the Kaplan-Meier estimation method and Cox proportional hazard model were applied respectively. The result from Kaplan-Meier estimation revealed that the loan repayment rate is significantly related with loan size, loan type, and previous loan experience, purpose of loan, educational level and type of collateral offered. Therefore, commercial banks should design loan strategies giving particular emphasis on these factors while they are giving loans to their customers.

Key words: Kaplan-Meier estimation, Cox proportional hazard model, repayment time, balance sheets