Credit Risk of Bank Customers can be Predicted from Customer's Attribute using Neural Network

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Abstract

The aim of this paper is to present a model based on Multi-layer perceptron neural networks to recognize bad or good credit customers. Credit risk is one of the major problems in banking sector. Banks are faced with credit Risk while doing their tasks. Credit risk is the probability of non-repayment of bank loan granted to lenders. Decreasing Credit Risk, banks may perform better duties and responsibilities successfully for the economic growth of the country. This study will help for a banker to select a right borrower for investing bank fund and hereby may reduce non-performing loan. Artificial neural network is used for loan applicants' credit risk measurement and the calculations have been done by using SPSS and WEKA software. Number of samples was 101 and 12 variables were used to identify good customers from bad customers. The results showed that, History of borrower (Defaulter or non-defaulter), amount of loan, type of collateral security (physical assets or financial assets) and Value of collateral security had most important effect in identifying classification criteria of good and bad borrowers. The main contribution of this paper is specifying for credit rating of bank customers in Bangladesh’s banking sector.
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Index Terms

Computer Science    Networks
Keywords

Credit risk, neural network, multilayer perceptron, Bank credit Customers