A Hybrid Support Vector Machine Ensemble Model for Credit Scoring

Abstract

Credit risk is the most challenging risk to which financial institution are exposed. Credit scoring is the main analytical technique for credit risk assessment. In this paper a hybrid model
for credit scoring is designed which applies ensemble learning for credit granting decisions. The hybrid model combines clustering and classification techniques. Ten Support Vector Machine (SVM) classifiers are utilized as the members of ensemble model. Since even a small improvement in credit scoring accuracy causes significant loss reduction, then the application of ensemble in hybrid model leads to better performance of classification. A real dataset is used to test the model performance. The test results shows that proposed hybrid SVM ensemble has better classification accuracy when compared with other methods.

Reference

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operational research society. vol. 54. pp. 627-635.

Index Terms

Computer Science

Security
Key words

Keywords-component: Ensemble
Credit scoring

Hybrid model