

工程与应用

基于粗集和SVM的客户抵押贷款违约评估王波¹, 刘勇奎¹, 郝艳友²

1.大连民族学院 计算机科学与工程学院, 辽宁 大连 116605

2.中国建设银行 大连分行, 辽宁 大连 116001

收稿日期 2007-7-9 修回日期 2007-10-19 网络版发布日期 2008-3-11 接受日期

摘要 信贷风险是金融机构风险的主要来源。支持向量机是基于VC维和统计学习理论理念的一种新的机器学习方法。它在解决两类问题时是一种较好的分类方法, 同时学习结果模型有较强的稳定性。在实际应用中, 采用Grid-search方法调整支持向量机的惩罚参数, 达到了更好的推广能力和预测结果。采用粗集对数据集进行预处理, 属性约简, 删除了多余的属性, 然后再用支持向量机进行分类建立了住房抵押贷款信用风险评估模型, 并与其他算法进行了比较, 取得了良好的分类效果。

关键词 [信用评估](#) [支持向量机](#) [属性约简](#) [Grid-search](#)**分类号****Defaults assessment of mortgage loan with RS and SVM**WANG Bo¹, LIU Yong-kui¹, HAO Yan-you²

1.College of Computer Science and Engineering, Dalian Nationalities University, Dalian, Liaoning 116605, China

2.Dalian Branch of China Construction Bank, Dalian, Liaoning 116001, China

Abstract

Credit risk is the primary source of risk to financial institutions. Support Vector Machine is a new machine learning method based on the idea of VC dimension and Statistical Learning Theory. It is a good classifier to solve binary classification problem and the learning results possess stronger robustness. We use Grid-search method adjusts these penalty parameters to achieve better generalization performances in our application. In this paper the attribute reduction of rough set has been applied as preprocessor so that we can delete redundant attributes, then default prediction model of the housing mortgage loan is established by using SVM. Classification performance is better than other classification algorithm.

Key words [credit rating](#) [Support Vector Machine](#) [attribute reduction](#) [grid-search](#)

DOI:

通讯作者 王波 wangb@dlnu.edu.cn**扩展功能****本文信息**▶ [Supporting info](#)▶ [PDF\(662KB\)](#)▶ [HTML全文\]\(0KB\)](#)▶ [参考文献](#)**服务与反馈**▶ [把本文推荐给朋友](#)▶ [加入我的书架](#)▶ [加入引用管理器](#)▶ [复制索引](#)▶ [Email Alert](#)▶ [文章反馈](#)▶ [浏览反馈信息](#)**相关信息**▶ [本刊中包含“信用评估”的相关文章](#)

▶ 本文作者相关文章

- [王波](#)
- [刘勇奎](#)
- [郝艳友](#)