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# Using fuzzy c-means clustering algorithm in financial health scoring

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## Abstract

*Classification of firms according to their financial health is currently one of the major problems in the literature. To our knowledge, as a first attempt, we suggest using fuzzy c-means clustering algorithm to produce single and sensitive financial health scores especially for short-term investment decisions by using recently announced accounting numbers. Accordingly, we show the calculation of fuzzy financial health scores step by step by benefit from Piotroski's criteria of liquidity/solvency, operating efficiency and profitability for the firms taken as a sample. The results of correlation analysis indicate that calculated scores are coherent with short-term price formations in terms of investors' behavior and so fuzzy c-means clustering algorithm could be used to sort firm in a more sensitive perspective.*

**Keywords:** Accounting numbers, financial analysis, financial classification, Fuzzy c-means (FCM) clustering algorithm

**JEL Classification:** G30, M49

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