

## Abstract

The healthy economics in the country will guarantee a success of that people's prosperity. One of the key of economics stability is stock. The movement itself is changing everyday with no estimation, so that a trader has to be ready for managing the stocks he or she had. A very great strategy is needed to choose a potential stock should be bought for anticipating suffers a financial loss. Stock index which is chosen to become data in this final assignment is LQ45 stock index. LQ45 is only consist of 45 stocks which is chosen from many selection criteria, so this stock will consist of stocks with high liquidity and high market capitalization. So that, it will be easy for trader to make a good decision for buying stock from high liquidity company.

This final assignment uses *fuzzy* dan *Variable-Centered Intelligent Rule System* (VCIRS). *Variable-Centered Intelligent Rule System* (VCIRS) is a system which is adapted from *Rule-based System* (RBS) and taking the good side from *Ripple Down Rules* (RDR). One of the reason using *Variable-Centered Intelligent Rule System* (VCIRS) is because this method combine *Rule-based System* (RBS) and *Ripple Down Rules* (RDR), where *Ripple Down Rules* (RDR) has the main feature which can add knowledge to knowledge base faster than conventional knowledge based system, because the rules are added without any modification. The aim of this method application for the stock selection case is to get the accurate output with a high certainty factor, where we can gain a good stock to be bought by the trader.

From the testing output of this final assignment, we can get a decision that combination of *fuzzy* concept with *Variable-Centered Intelligent Rule System* (VCIRS) deliver good prediction rate or certainty factor (commonly reaching more than 85%) concerning stock selection.

**Keywords:** *Fuzzy, LQ45, Ripple Down Rules, Rule-based System, Variable-Centered Intelligent Rule System*