Development and Validation of Dynamic Cost-Averaging Model Using Relative Strength Index and Stochastics

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Abstract

The ultimate goal of an investor is the maximization of profits and reduction of risks involved in stocks trading. In spite of the numerous literatures on the benefits of Cost-Averaging, there are papers challenging its effectiveness in theory and in practice as it contradicts the principle of buying-low and selling-high. The study aimed to develop a model that will guide the investors for a more profitable trade. It attempted to modify the principle of buying at regular intervals into a more strategic determination of optimal buying positions. To be able to validate the developed model, this study utilized an empirical method of research. The research used the price data in the last ten years of 10 stocks representing various sectors. The buying and selling price of the stocks were recorded based on the signals given by Relative Strength Index (RSI) and Stochastics (STS) as technical indicators. Empirical evidence proves that DCA provides a substantial increase in profitability over CA. There is a significant increase in the profit ratio (by 33.71 percent) as evidenced by the result of the t-test. A decision tree model was developed to standardize the method and may serve as a guide for long-term investments.

Keywords: profitability analysis, cost-averaging, dynamic cost-averaging, stocks trading, position trading