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A Study on the Optimal Dollar-cost Averaging Quantitative Investment Model for Exchange Traded Funds – Evidences from Taiwan 50 ETF

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The stock-type exchange traded funds (ETFs) whose performances are tracked and simulated to be consistent with the given market index have been chosen as an alternative by general investors because of failing to effectively manage the fluctuation of economic situation and security market for lack of analysis ability. This study focuses on creating the optimal investment strategies in terms of ETF investors. Comparing with the lump-sum strategy, the majority of the related researches indicate that the dollar-cost averaging strategy can realize the effectiveness of dispersing the investment timing, averaging investment cost and reducing investment risk. Consequently, the business is likely popularized to ETFs. A variety of market technical indicators and economic fundamental indicators are sensibly combined. Adjustment in periodical investing amount is determined based on the value of bi-aspect integrated indicator at that time. As a result, an investment strategy similar to variable amount dollar-cost averaging is created. Furthermore, the optimal quantitative investment model can be found out through empirical analysis. This study takes Taiwan 50 ETF as the empirical study sample. Two main findings are acquired from empirical results. First, the variable amount dollar-averaging strategy developed by this study, overall, is exactly considerably superior to traditional dollar-averaging strategy. Second, this study definitely creates an optimal dollar-cost averaging quantitative investment model that can yield the relatively outstanding performance via the multi-feature analysis and comparison.

Key Words: Exchange Traded Fund, Dollar-cost Averaging Strategy, Quantitative Investment Technique.

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