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# *Abstract*

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Doctor of Philosophy

## Pattern recognition applied to chart analysis. Evidence from intraday international stock markets

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Technical analysis as a sophisticated form of forecasting technique has a varying popularity in the academic and business world. In the past, users were sceptical about technical trading rules and their performance. This is substantiated by the acceptance of the Efficient Market Hypothesis and mixed empirical findings about technical analysis in widely cited studies.

The flag pattern is seen as one of the most significant spread chart patterns amongst stock market charting analysts. The present research validates a trading rule based on the further development of flag pattern recognition. The research question concentrates on whether technical analysis applying the flag pattern can outperform international stock markets indices and prove the inefficiency of these markets. The markets observed are represented by the corresponding indices DAX (Germany), DJIA (United States) and IBEX (Spain).

The design of the trading rule presents several changes with respect to previous academic works: The wide sample used when considering intraday data, together with the configuration of some of the variables and the consideration of risk, concludes that the trading rule provides greater positive risk-adjusted returns than the buy-and-hold strategy which is used as a benchmark. The reported positive results strengthen the robustness of the conclusions reached by other researchers.