

# Investment Fund Performance: The Role of Quantitative Techniques

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## Abstract

The objective of this study is to verify whether the application of quantitative investment techniques has any significant impact on the performance of investment funds. This study aims to answer the question of whether state-of-the-art and automated approaches to portfolio management guarantee higher performance compared to traditional approaches. By applying a variety of performance measures and econometric models, this study focuses on a sample of nearly three hundred thousand investment funds in the period from 01/01/2000 to 31/12/2020. The examined funds apply various strategies and invest in many different regions. The study conducted allowed to state that the differences in performance between quantitative and qualitative funds vary between strategies and the geographic regions of a primary investment focus. Quantitative funds do not guarantee the outperformance of traditionally managed funds. The conclusions coming from this study may be valuable to managers considering the implementation of quantitative approaches to portfolio management and investors wondering if the application of state-of-the-art approaches to portfolio management results in higher performance.

**Keywords:** portfolio management; qualitative funds; quantitative funds; quantitative investment strategies; weak-form informational efficiency