

Does ESG Improve Firm Profitability? Evidence from U.S. Listed Companies

Ioannis Tampakoudis¹ Sultana Moustaka²

Abstract

Environmental, Social, and Governance (ESG) considerations have become increasingly important in evaluating corporate performance, yet their impact on firm profitability remains debated. This study investigates the relationship between ESG performance and financial outcomes using a panel dataset of 1,785 publicly listed U.S. firms over the period 2019-2024. The analysis employs a fixed-effects panel regression model, implemented in Python, to control for firm-specific heterogeneity and key financial characteristics, including liquidity, leverage, market risk, and firm size. The empirical results reveal a strong and statistically significant positive relationship between ESG performance and profitability. Specifically, ESG exhibits a positive coefficient ($\beta = 0.986$, $p < 0.01$), indicating that firms with higher ESG scores achieve higher returns on equity (ROE). Firm size also has a positive and statistically significant effect ($\beta = 12.76$, $p < 0.01$), suggesting that larger firms benefit from structural advantages that enhance financial performance. Liquidity is positively associated with profitability ($\beta = 2.54$, $p < 0.01$), indicating that firms with stronger short-term financial positions tend to achieve higher returns on equity. In contrast, leverage exhibits a negative and significant relationship with profitability ($\beta = -0.598$, $p < 0.01$), implying that higher reliance on debt may constrain firm performance. Similarly, market risk is negatively associated with ROE ($\beta = -5.03$, $p < 0.01$), suggesting that firms with greater exposure to systematic risk tend to experience lower profitability. These findings demonstrate that ESG performance constitutes a meaningful driver of firm profitability. By providing robust firm-level evidence within a panel econometric framework, the study contributes to a clearer understanding of the financial relevance of ESG. The results highlight the importance of integrating sustainability practices and firm characteristics into strategic decision-making, offering practical implications for managers, investors, and policymakers seeking to enhance long-term corporate performance.

Keywords: ESG, corporate sustainability, sustainable finance, ROE, firm financial performance, firm profitability

Doi: <https://doi.org/10.66414/mlabs.9722>

¹ Associate Professor, UoM, Greece. ORCID: 0000-0002-8311-223X

² PhD Candidate, UoM, Greece. ORCID: 0009-0009-7922-2717