IMPACT OF ESG SCORES ON STOCK PERFORMANCE: EVIDENCE FROM THE INDIAN EQUITY MARKET (2016–2023)

Background and Objectives:

With global investors increasingly prioritizing sustainability, ESG metrics have emerged as critical indicators of a firm's long-term performance and risk exposure. In India, the integration of ESG into investment decisions has gained traction, yet its actual influence on stock returns remains contested.

Objectives:

- To examine whether ESG scores are positively associated with stock performance in the Indian context.
- To identify which ESG component (E, S, or G) most strongly affects market returns.
- To evaluate the sensitivity of stock volatility to ESG rating changes.

Research Questions:

1. Do companies with higher ESG scores outperform the market in terms of return and risk-adjusted performance?
2. Which among Environmental, Social, and Governance scores has the most significant influence on investor sentiment?
3. How do ESG score changes impact stock volatility?

Hypotheses:

- **H1:** Firms with higher ESG scores exhibit superior annualized returns.
- **H2:** Environmental score has a stronger positive association with stock returns than Social or Governance.
- **H3:** Positive ESG score changes are associated with lower stock return volatility.

Methodology:

- **Research Design:** Quantitative, panel data regression
- **Data Period:** 2016–2023 (annual)
- **Sample:** 80 publicly listed Indian firms across sectors (Nifty 100 + BSE100 overlap)
- **Data Sources:**
    - ESG Scores: Refinitiv and MSCI ESG ratings
    - Stock Prices: NSE/BSE closing data from Yahoo Finance
    - Control Variables: Market capitalization, sector, P/E ratio, ROE
- **Analytical Tools:**
    - R (for regression, fixed/random effects, and variance analysis)
    - Excel (data cleaning)
    - Stata (robustness checks)
- **Models Used:**
    - Fixed Effects Panel Regression
    - Fama-French Three Factor Model with ESG beta
    - Volatility Regression using GARCH(1,1)

Results and Interpretations (Simulated):

- **Return Impact:**
    - A 1-point increase in ESG score led to a 0.35% increase in annualized returns ($p < 0.05$).
    - Environmental component had the highest coefficient ($\beta = 0.28$), followed by Governance ($\beta = 0.17$).
- **Volatility Analysis:**
    - Firms with consistently high ESG scores showed 18% lower return volatility than low-ESG counterparts.
    - GARCH results confirmed a statistically significant inverse relationship between ESG score and volatility.

- **Sectoral Variation:**
    - ESG impact was strongest in financial services and consumer goods, and weakest in heavy industry.

Conclusion and Managerial Implications:

The findings support the hypothesis that ESG performance enhances investor confidence and reduces perceived risk. Indian firms can leverage ESG disclosures not only for compliance, but also as a signal of governance quality and long-term stability. Fund managers should incorporate ESG factors into asset screening and risk analysis.

Future Research Scope:

- Sector-wise deep dive (e.g., ESG in banking vs manufacturing).
- ESG and institutional investor behavior in India (using FII inflows).
- Longitudinal tracking of ESG disclosure quality and its relationship to market anomalies.
- Sentiment analysis on news-based ESG perceptions.

Academic and Corporate Relevance:

- **Academic:** Appropriate for dissertation topics in finance, investment analysis, and sustainability in business.
- **Corporate:** Applicable to ESG analysts, equity research firms, and portfolio managers focused on sustainable investing in emerging markets.