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Sustainability Index and Corporate Performance: A Study of the FTSE4Good IBEX

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Abstract: *In response to the evolution of global paradigms, contemporary companies have moved beyond the exclusive pursuit of traditional financial metrics, embracing environmental, social, and governance (ESG) considerations as fundamental components of their strategic agendas. This study delves into ESG's influence on financial performance among Spanish companies listed on the FTSE4Good IBEX versus the IBEX 35 from 2015 to 2022. Surprisingly, sustainability index inclusion doesn't guarantee superior financial outcomes; IBEX 35 firms showcase stronger liquidity, solvency, return on assets, and investment compared to FTSE4Good IBEX counterparts. Return on equity and financial leverage, however, display no significant divergence between the groups, adding intricacy to the ESG-finance correlation. The findings emphasize addressing financial hurdles for ESG-centric entities and challenge the FTSE4Good IBEX's comprehensive reflection of ESG practices. Continuous exploration of factors shaping the relationship between ESG and financial results remains imperative for comprehensive insights.*

1. INTRODUCTION

In recent decades, the business landscape has undergone a fundamental transformation in how companies measure and assess performance. Beyond traditional financial indicators, there has emerged a more comprehensive and integrative approach encompassing environmental, social, and governance (ESG) factors. Companies are no longer solely judged based on their profits and losses but also on their commitment to sustainability and corporate responsibility.

ESG activities have become an essential component of business strategy in a world where ethics, sustainability, and social responsibility are key factors for organizational success and longevity (Brooks & Oikonomou, 2018; Coluccia et al., 2018; Durand et al., 2019). Firms consistently adopting ESG practices can benefit from an enhanced reputation, stronger stakeholder relationships, and a competitive edge in the market (Kim et al., 2018).

The significance of ESG criteria is also reflected in financial markets, with a growing emphasis on sustainable investments (Friede et al., 2015). According to the Global Sustainable Investment Alliance (GSIA, 2020), in major global financial markets at the beginning of 2020, socially responsible investments (SRI) reached a value of $35.3 trillion, representing 36% of total institutional investment in the United States, Canada, Japan, Australia, and Europe, with a 15% growth in two years. In the Spanish financial market, sustainable assets accounted for 51% of total investments in 2021, a 10% increase from the previous year (Spainsif, 2022).

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Sustainability indices play a vital role in this context. They provide a framework for evaluating and comparing companies' ESG performance, allowing investors and businesses to measure their commitment to sustainability and corporate responsibility, potentially influencing investment decisions (Durand et al., 2019). Some of the most prominent and recognized sustainability indices globally include the Dow Jones Sustainability Index (DJSI), the FTSE4Good Index Series, the MSCI ESG Indexes, and the S&P 500 ESG Index.

Interest in these indices and SRI, in general, has fueled extensive academic production focused on exploring the relationship between ESG activities and the financial performance (FP) of companies (Friede et al., 2015). Although the majority of these works establish a positive relationship between ESG and FP, many studies present ambiguous results, lack definitive conclusions, or show negative relationships (Brooks & Oikonomou, 2018; Revelli & Viviani, 2015). A recent study conducted by Whelan et al. (2021) centered on meta-analyzing over 1,000 empirical works studying the relationship between ESG and FP from 2015 to 2020. According to the results, among studies measuring FP using indicators like ROE, ROA, or stock prices, 58% found a positive relationship with ESG performance, 13% a neutral impact, 8% a negative relationship, and 21% yielded mixed results, indicating that a single study observed both positive, neutral, and negative outcomes. Moreover, among works analyzing FP through risk-related variables like alpha or the Sharpe ratio in a stock portfolio, 33% showed better performance compared to conventional investment approaches, 26% similar performance, 28% mixed results, and only 14% found negative returns.

This paper follows a structured approach, beginning with a theoretical framework, objectives, research methodology, and the presentation and discussion of findings. Finally, concluding remarks encapsulate key insights gleaned from the study.

2. LITERATURE REVIEW

The relationship between ESG performance and the financial performance of companies has been extensively studied in literature. Although results are inconclusive, most studies suggest that effective management of ESG factors positively influences financial performance. It is believed that strong ESG performance helps reduce legal risks, improves corporate management, enhances brand reputation, attracts and retains skilled employees, leading to increased financial returns.

Orlitzky et al. (2003) conducted a meta-analysis of 52 studies comprising 33,878 observations, concluding a positive relationship between ESG and financial performance, highlighting that how variables are measured may moderate this relationship. Busch and Friede (2018) further delved into the ESG-FP relationship based on 25 meta-analyses and over 1,000,000 observations, finding significant, positive, and robust results supporting a bidirectional relationship between ESG and FP, particularly when FP is measured through operational performance.

However, some researchers argue that ESG only represents a cost for the company without offering real benefits, consequently decreasing profitability (Kim & Lyon, 2015). García and Orsato (2020) study a sample of companies from emerging and developed countries and find a negative relationship between ESG and FP, whether FP is measured using market or accounting indicators.

There are also studies indicating a non-significant or mixed relationship between ESG activities and financial performance. Nelling and Webb (2009) found a very weak relationship between both variables, suggesting that higher FP drives investments in ESG but ESG activities do not

contribute to increased FP. Han et al. (2016) analyzed the relationship between the three dimensions of ESG and FP, discovering that good governance performance increases FP, environmental performance reduces it, and social performance is unrelated.

Regarding specific studies comparing the relationship between ESG performance and FP of companies listed in sustainable indices versus traditional ones, there are mixed results. Charlo et al. (2015), focusing on companies listed in the FTSE4Good IBEX, concluded that Spanish sustainability index companies exhibit superior profitability for the same systematic risk level and are more sensitive to market changes. Lassala et al. (2017) analyzed companies in both FTSE4Good IBEX and solely IBEX and found that good ESG performance facilitates access to funding, reduces costs significantly, and has a substantial impact on ROE, provided the company maintains a certain ROA, indicating efficient asset utilization.

Santis et al. (2016) compared the performance between companies belonging to IBOVESPA (Sao Paulo Stock Exchange index), ISE (sustainability corporate index), and both groups, finding no differences between companies except for the general liquidity ratio, which they attributed to sustainable companies being more focused on the long term. The study suggests that sector characteristics have a greater impact on companies' economic and financial performance.

Given the growing interest in sustainability and corporate responsibility in financial markets, the aim of this study is to investigate the effect of ESG activities on the financial performance of companies listed on the Spanish sustainability index (FTSE4Good IBEX) between 2015 and 2022, compared to companies listed on the traditional IBEX 35 index. Considering the ambiguity and variations in previous findings, this research seeks to shed light on how ESG activities and listing on a sustainability index may influence the financial performance of companies in the Spanish market, providing valuable insights for decision-making purposes for both investors and companies aiming to balance their financial objectives with their commitment to superior environmental, social, and governance practices.

3. METHODOLOGY AND DATA

To examine the impact of ESG practices on Financial Performance, a comparative descriptive analysis of the financial performance of Spanish companies included in the FTSE4Good IBEX index (22 companies) and the IBEX 35 (16 companies) was conducted during the period from 2015 to 2022. Table 1 presents the companies forming part of the sample for this study. Companies from the financial and insurance sectors are excluded due to different accounting regulations, which hinder the comparison of financial statements with those of companies in other sectors (Nirino et al., 2021).

Table 1. Components of the IBEX 35 and FTSE4Good IBEX

IBEX 35	FTSE4Good IBEX
Abertis (ABE), Acerinox (ACX), Aena (AENA), Endesa (ELE), Grifols (GFR), Merlin Properties (MRL), Técnicas Reunidas (TRE), Jazztel (JAZ), Viscofan (VIS), Inmobiliaria Colonial (COL), Ence Energía (ENC), Masmovil (MAS), Almirall (ALM), Pharma Mar (PHM), Solaria Energia (SLR), Laboratorios Rovi (ROVI)	Abengoa (ABG), ACS Actividades Construcciones y servicios (ACS), Applus Services (APPS), Codere (CDR), Construcciones y Auxiliar de Ferrocarriles (CAF), Deoleo (OLE), Dia (DIA), Ebro Foods (EBRO), Ence Energía (ENC), Euskaltel (EKT), Fluidra (FDR), Fomento de Construcciones y Contratas (FCC), Gestamp Automocion (GEST), Lar España Real Estate (LRE), Logista (LOG), Mediaset España (TL5), Meliá (MEL), NH Hotel Group (NHH), Obrascon Huarte Lain (OHL), Promotora de Informaciones (PRS), Prosegur (PSG), Sacyr (SCYR)

Source: Own elaboration

From the financial statements of the companies obtained from the National Securities Market Commission and the companies' websites, various financial ratios were calculated. According to López et al. (2007), these ratios are more reliable and more accurately reflect the company's situation than market indicators. The ratios analyzed in this study, summarized in Table 2, are widely recognized and used in academic and professional fields to gain a comprehensive understanding of companies' financial situations and performance. They are categorized into three principal groups: liquidity, solvency, and profitability.

Liquidity measures a company's ability to convert its current assets into cash to cover its short-term debts. High liquidity suggests that the company can meet its financial obligations without issues. Solvency indicates a company's ability to meet its long-term obligations using all its assets. This indicator is valuable in assessing how debt affects asset management (Pertiwi Lolo & Yuliandhari, 2020).

Return on Assets (ROA) is a key indicator that evaluates a company's effectiveness in utilizing its assets to generate profits. It is calculated as the ratio between net income and total assets. A high ROA indicates that the company is generating good returns with its assets. Return on Equity (ROE) is an essential measure that assesses how efficiently a company uses its equity to generate profits. It is calculated as the ratio between the company's net income and its equity. A high ROE indicates that the company is providing a solid return for its shareholders compared to the capital investment. Return on Investment (ROI) is another valuable indicator that measures the profits generated with total investments made. It is a widely used ratio to evaluate companies' profitability (Vergiú & Bendezú, 2007).

Lastly, financial leverage is related to the use of external financing or debt to invest in assets and maximize profits. This approach is based on the idea that incorporating additional financial resources can enhance a company's returns and profits, although this indebtedness also entails increased associated risk. When this indicator is greater than 1, it denotes that the return generated through financial debt investment surpasses the interest accrued by it, ultimately leading to increased financial profitability. If the indicator is below 1, it implies that the interest generated by the debt surpasses the return obtained from the same investment, suggesting the need for debt restructuring to balance the ratio and bring it to 1.

Table 2. Analyzed Variables

Variable	Description
Liquidity (LIQ)	Current Assets/Current Liabilities
Solvency (SOLV)	Total Assets/(Current Liabilities + Non-current Liabilities)
Retun on Assets (ROA)	Earnings Before Interest and Taxes (EBIT) / Total Assets
Returns on Equity (ROE)	Net Income/Equity
Return on Investment (ROI)	Net Income/Non-current Assets
Financial Leverage (FL)	Assets / Equity x Earnings Before Taxes / EBIT

Source: Own elaboration

For the statistical analysis of the mentioned variables, SPSS 28.0 software was utilized. Prior to hypothesis testing, a normality test (Kolmogorov-Smirnov) was conducted to assess data distribution. However, since the data did not follow a normal distribution, non-parametric inference was chosen. Specifically, to determine if there were significant differences between the financial indicators of companies listed on the FTSE4Good and the IBEX 35, the Mann-Whitney U test was employed. This statistical approach enabled the derivation of robust and significant results for the research.

4. RESULTS AND DISCUSSION

Below, in Table 3, descriptive statistics (mean, median, and standard deviation) of the calculated accounting indicators for companies belonging to the IBEX 35 and the FTSE4Good IBEX are presented. The table also indicates the median difference for each ratio, along with the statistical significance of these differences.

Table 3. Descriptive Statistics and Mann-Whitney U Test

	FTSE4Good IBEX			IBEX 35			Difference Stockings
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.	U
Liquidity	1,2027	1,1192	0,626	1,8272	1,547	1,0521	0,4278**
Solvency	1,2581	1,2144	0,4626	1,7092	1,582	0,4828	0,3676***
ROA	0,0449	0,0418	0,1286	0,0872	0,055	0,0897	0,0132***
ROI	0,0043	0,0356	0,4671	0,1841	0,070	0,3233	0,0344***
ROE	-0,0467	0,1094	1,8404	0,1619	0,151	0,2210	0,0416
Financial Leverage	-0,468	2,5788	77,1203	4,2024	1,921	13,7556	-0,6578

Note: ** $p < 0,05$; ***$p < 0,01$.

Source: Own elaboration

The results of the liquidity analysis reveal statistically significant differences between companies comprising the IBEX and those in the FTSE4Good IBEX. While both groups exhibit adequate liquidity levels, IBEX 35 companies enjoy a more favorable position in meeting their short-term obligations compared to companies in the sustainability index.

Concerning solvency, there are also statistically significant differences identified between companies listed in the sustainability index and the traditional index. Upon examining the mean values of this indicator, IBEX 35 companies demonstrate 36% more solvency than those in the FTSE4Good IBEX. These findings contrast with previous studies by Santis et al. (2016) and DiSegni et al. (2015), who observed that sustainable companies displayed better solvency justified by a long-term management focus. Several explanations might influence this result. On one hand, it is plausible that IBEX 35 companies allocate less toward environmental, social, and governance aspects, potentially providing them with increased short-term cash availability and hence, improved solvency. Additionally, investor-perceived risk plays a significant role. If investors perceive that companies excelling in ESG standards pose higher financial risk due to more rigorous environmental, social, and governance standards, they might favor companies with less stringent criteria, potentially boosting the solvency of the latter.

Regarding profitability, the results indicate that Return on Assets (ROA) for IBEX 35 companies is significantly higher than that of companies included in the FTSE4Good IBEX. Upon analyzing the ROI, it's also noted that IBEX 35 companies achieve a significantly greater return on investment compared to those in the FTSE4Good IBEX. This implies that substantial investment in ESG-related initiatives might correlate with reduced profitability, suggesting the possibility that additional costs associated with ESG activities, as proposed by Madaleno and Vieira (2020), could negatively impact the economic profitability of companies emphasizing these practices. In line with agency theory, Buchanan et al. (2018) suggest that at times, managers might channel company resources toward ESG projects that do not substantially benefit shareholders, potentially diminishing business profitability and, ultimately, shareholders' interests.

Moreover, no significant differences in profits generated by companies from both groups concerning their equity are observed in the results. Certain studies, such as those conducted by

Charlo et al. (2015) and Curran and Moran (2007), imply that being part of a sustainable development index, at least within the Spanish context, does not seem to substantially impact financial profitability measured by ROE. However, it is important to highlight that, as displayed in Table 3, companies forming part of the IBEX35 present a median of this indicator that is 50% higher than that of companies included in the FTSE4Good IBEX.

Finally, the results also do not indicate significant differences between the financial leverage of IBEX 35 companies and the FTSE4Good IBEX. However, as observed in Table 3, companies in the FTSE4Good IBEX exhibit a lower value for this ratio. According to the data, IBEX 35 companies generate profits that exceed the interest associated with their debt, suggesting that financial leverage functions beneficially by increasing shareholders' profitability in these companies. In contrast, companies in the FTSE4Good IBEX show profitability lower than the cost of debt, indicating that financial leverage may be less advantageous in this scenario.

5. CONCLUSION

This study analyzed the financial performance of companies listed in the FTSE4Good IBEX and IBEX 35 indices during the period from 2015 to 2022. The results highlight that inclusion in the sustainability index does not guarantee better financial performance compared to companies that are not part of it.

The analysis reveals that IBEX 35 companies stand out in terms of liquidity and solvency, contrasting with previous evidence from studies on sustainability indices (DiSegni et al., 2015; Santis et al., 2016). It is likely that, in the Spanish context, companies with higher ESG performance face additional challenges in their short and long-term financial obligations. Additionally, the results show that IBEX 35 companies are the most profitable in terms of ROA and ROI, although no significant differences are observed in terms of Return on Equity (ROE) compared to FTSE4Good IBEX companies.

However, it is important to note that inclusion in the FTSE4Good IBEX does not fully reflect the ESG practices that companies may be implementing in their daily operations (Han et al., 2016). This aspect is particularly relevant since companies included in the IBEX 35 are also actively engaged in ESG activities. Therefore, it is necessary to recognize that IBEX 35 companies might be undertaking a wide variety of ESG initiatives, even if their ESG ratings do not fully capture the breadth and impact of these actions. This potential discrepancy between ESG scores that do not allow them to be included in the sustainability index and the specific actions they actually implement in this area could significantly influence the results observed in our study.

Furthermore, it is essential to underline that financial analysis and ESG performance assessment are complex and multifaceted processes. The results presented in this study offer a snapshot of a specific period and may be influenced by various factors affecting companies and their performances. These factors can be both external, such as the level of competition or the economic cycle, and internal, including aspects like management quality and business strategy. Therefore, it is essential to further explore these factors to obtain a more comprehensive understanding of the relationship between ESG performance and the financial performance of companies.

References

Brooks, C., & Oikonomou, I. (2018). The effects of environmental, social and governance disclosures and performance on firm value: A review of the literature in accounting and finance. *The British Accounting Review*, *50*(1), 1-15. https://doi.org/10.1016/j.bar.2017.11.005

Buchanan, B., Cao, C. X., & Chen, C. (2018). Corporate social responsibility, firm value, and influential institutional ownership. *Journal of Corporate Finance, 52*, 73-95. https://doi.org/10.1016/j.jcorpfin.2018.07.004

Busch, T., & Friede, G. (2018). The robustness of the corporate social and financial performance relation: A second-order meta-analysis. *Corporate Social Responsibility and Environmental Management, 25*(4), 583-608. https://doi.org/10.1002/csr.1480

Charlo, M. J., Moya, I., & Muñoz, A. M. (2015). Sustainable Development and Corporate Financial Performance: A Study Based on the FTSE4Good IBEX Index. *Business Strategy and the Environment, 24*(4), 277-288. https://doi.org/10.1002/bse.1824

Coluccia, D., Fontana, S., & Solimene, S. (2018). Does Institutional Context Affect CSR Disclosure? A Study on Eurostoxx 50. *Sustainability, 10*(8), 2823. https://doi.org/10.3390/su10082823

Curran, M. M., & Moran, D. (2007). Impact of the FTSE4Good Index on firm price: An event study. *Journal of Environmental Management, 82*(4), 529-537. https://doi.org/10.1016/j.jenvman.2006.02.010

DiSegni, D. M., Huly, M., & Akron, S. (2015). Corporate social responsibility, environmental leadership and financial performance. *Social Responsibility Journal, 11*(1), 131-148. https://doi.org/10.1108/srj-02-2013-0024

Durand, R., Paugam, L., & Stolowy, H. (2019). Do investors actually value sustainability indices? Replication, development, and new evidence on CSR visibility. *Strategic Management Journal, 40*(9), 1471-1490. https://doi.org/10.1002/smj.3035

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment, 5*(4), 210-233. https://doi.org/10.1080/20430795.2015.1118917

Garcia, A. S., & Orsato, R. J. (2020). Testing the institutional difference hypothesis: A study about environmental, social, governance, and financial performance. *Business Strategy and the Environment, 29*(8), 3261-3272. https://doi.org/10.1002/bse.2570

Global Sustainable Investment Alliance. (2020). Global Sustainable Investment Review 2020. https://www.gsi-alliance.org/wp-content/uploads/2021/08/GSIR-20201.pdf

Han, J.-J., Kim, H. J., & Yu, J. (2016). Empirical study on relationship between corporate social responsibility and financial performance in Korea. *Asian Journal of Sustainability and Social Responsibility, 1*(1), 61-76. https://doi.org/10.1186/s41180-016-0002-3

Kim, E. H., & Lyon, T. P. (2015). Greenwash vs. brownwash: Exaggeration and undue modesty in corporate sustainability disclosure. *Organization Science, 26*(3), 705-723. https://doi.org/10.1287/orsc.2014.0949

Kim, K.-H., Kim, M., & Qian, C. (2018). Effects of Corporate Social Responsibility on Corporate Financial Performance: A Competitive-Action Perspective. *Journal of Management, 44*(3), 1097–1118. https://doi.org/10.1177/0149206315602530

Lassala, C., Apetrei, A., & Sapena, J. (2017). Sustainability Matter and Financial Performance of Companies. *Sustainability, 9*(9), 1498. https://doi.org/10.3390/su9091498

López, M. V., Garcia, A., & Rodriguez, L. (2007). Sustainable Development and Corporate Performance: A Study Based on the Dow Jones Sustainability Index. *Journal of Business Ethics, 75*(3), 285-300. https://doi.org/10.1007/s10551-006-9253-8

Madaleno, M., & Vieira, E. (2020). Corporate performance and sustainability: Evidence from listed firms in Portugal and Spain. *Energy Reports, 6*, 141-147. https://doi.org/10.1016/j.egyr.2020.11.092 [

Nelling, E., & Webb, E. (2009). Corporate social responsibility and financial performance: the "virtuous circle" revisited. *Review of Quantitative Finance and Accounting, 32*(2), 197-209. https://doi.org/10.1007/s11156-008-0090-y

Nirino, N., Santoro, G., Miglietta, N., & Quaglia, R. (2021). Corporate controversies and company's financial performance: Exploring the moderating role of ESG practices. *Technological Forecasting and Social Change, 162*, 120341. https://doi.org/10.1016/j.techfore.2020.120341

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate Social and Financial Performance: A Meta-Analysis. *Organization Studies, 24*(3), 403-441. https://doi.org/10.1177/0170840603024003910

Pertiwi Lolo, Y. E., & Yuliandhari, W. S. (2020). The Effect of Profitability, Liquidity and Solvency on Corporate Social Responsibility. *JASa (Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi), 4*(3), 465-472. https://doi.org/10.36555/jasa.v4i3.1408

Revelli, C., & Viviani, J.-L. (2015). Financial performance of socially responsible investing (SRI): what have we learned? A meta-analysis. *Business Ethics: A European Review, 24*(2), 158-185. https://doi.org/10.1111/beer.12076

Santis, P., Albuquerque, A., & Lizarelli, F. (2016). Do sustainable companies have a better financial performance? A study on Brazilian public companies. *Journal of Cleaner Production, 133*, 735-745. https://doi.org/10.1016/j.jclepro.2016.05.180

Spainsif. (2022). La Inversión Sostenible y Responsable en España 2022. https://www.spainsif.es/wp-content/uploads/2022/10/Estudio-de-mercado-Spainsif-2022.pdf

Vergiú, C., & Bendezú, M. (2007). Los Indicadores financieros y el valor económico agregado. *Gestión y Producción, 10*(1), 42-47.

Whelan, T., Atz, U., Van Holt, T., & Clark, C. (2021). *ESG and financial performance.* In *Uncovering the Relationship by Aggregating Evidence from 1000 Plus Studies Published between 2015–2020.* New York: NYU Stern Center for Sustainable Business. https://www.stern.nyu.edu/sites/default/files/assets/documents/NYU-RAM_ESG-Paper_2021.pdf