Environmental, Social, and Governance impact on financial and market performance of listed companies in the Vietnam's stock market

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ABSTRACT

This study examines the impact of ESG activities, a corporate action that is gaining increasing attention, on firm performance. With a sample of 556 observations from 139 companies of VNX Allshare index being listed on HOSE and HNX within the period of 2018 - 2021, the study discovers that while firms that actively implement ESG earn superior financial performance over those passively implementing ESG, investing in those active-ESG stocks does not realize excess returns. This evidence suggests that market investors have not appropriately evaluated and sufficiently acknowledged the benefits of investing in ESG even though it brings financial outcomes. This research contributes to the understanding of the role and impact of ESG on businesses and investors in Vietnam.

1. Introduction

ESG, which stands for Environmental - Social - Governance, is an illustrative aspect of sustainable development in business practices. Though the term was first introduced at a UN Global Compact summit titled "Who cares Win" and subsequently endorsed by the UN's principles in 2005 (United Nation [UN], 2004), ESG is understood as interchangeable standards for commonly mentioned Corporate Social Responsibilities (CSR) in the earlier years. Since then, ESG criteria have progressively become a more meaningful objective for managers. The letter "E" (Environment) encompasses issues such as greenhouse gas emissions, carbon footprint, sustainable development, and their effects on climate change. It refers to the measurement of a business's influence on the natural environment, including its impact on living organisms and human beings. The letter "S", which stands for Social, pertains to the manner in which a firm interacts with its workers and the surrounding community. The "G" (Governance) focuses on the analysis of corporate governance practices, including shareholders, stakeholders, board of directors, information disclosure, transparency, and other legal matters pertaining to business governance.

ESG factors can influence organizations in two ways: by affecting internal performance (Alareeni & Hamdan, 2020; Ruf et al., 2001), and by shaping market expectations for these firms (Albuquerque et al., 2020; Bae et al., 2021; Broadstock et al., 2021). ESG initiatives have a direct impact on operational efficiency and corporate profitability in various ways (Alareeni & Hamdan, 2020; Shaikh, 2022; Ruf et al., 2001). These include cost reduction through decreased energy consumption, improved production efficiency by boosting employee motivation and attracting

talented individuals, optimizing sustainable value chains, avoiding legal actions and penalties, and attracting customers who prioritize corporate ESG responsibilities (Henisz et al., 2019).

Given the findings of the positive impacts of ESG, investors still doubt about the benefits of ESG. There was once a belief that the goals of ESG were not aligned with the objectives of investors, particularly institutional investors who prioritized maximizing shareholder value regardless of the consequences. Nevertheless, in recent years, ESG issues have gained widespread attention from society, including institutional investors. Blackrock offers incentives to entities that want to adopt ESG practices and incorporate ESG-related criteria into their corporate decision-making policies for investments. Investment funds in Vietnam, such as Dragon Capital and Vinacapital, use ESG criteria in selecting investee companies. Moreover, there has been a significant and rapid rise in the demand for ESG investments in global funds. As of the beginning of 2020, the total value of assets managed under ESG funds reached $38 trillion globally, representing a 66% increase over a period of three years (Azoth Analytics, 2020). According to research by the US Sustainable Invesment Forum, ESG-managed assets make up a significant share of professionally managed properties in Europe, as well as in countries such as Australia and Japan (USSIF, 2020). ESG-managed asset value in the US reached $17 trillion in 2020, representing 33% of the value of all managed assets in the country. This represents a significant growth of 42% from the $12 trillion recorded in 2018.

In light of the recent focus of Vietnam on ESG issues, particularly after the Prime Minister's commitment at the 26th Climate Summit (COP26), Vietnam has implemented legislation pertaining to the implementation and dissemination of ESG standards in new provisions in environmental protection laws and in disclosure law applying to public companies. As per Circular No. 155/2015/TT-BTC (The Ministry of Finance, 2015), firms are required to provide information on their ESG activities in their annual reports. While regulation has been in place, it is expected that firms will soon comply with and ESG is expected to be implemented more strongly and broadly at firm levels. However, whether ESG-related efforts implemented by firms will bring benefits to firms in terms of financial performance? And whether the stock market performance, represented by stock return and market-to-book ratio, is aligned with the improved financial performance of practicing ESG? These are the questions this study aims to address.

Previous studies have discussed and found various evidence of the unparalleled impacts of ESG on firm performance, financial or accounting performance, and market performance of firms. Bae et al. (2021) do not find evidence that CSR affects stock returns, which is the opposite of Engelhardt et al. (2021) for the sample of European firms. Looking further into details of ESG financial impacts on market performance, Albuquerque et al. (2020) found that while ESG positively impacts market performance, measured by stock returns, and reduces stock volatility, it does not have an impact on financial performance, measured by ROA. Explaining the variation in firm performance is the theme of the study (Hoopes et al., 2003). While both accounting-based and market-based measures are commonly employed as indicators of firms' financial performance, there is an ongoing debate regarding their suitability in accurately representing firm performance and the extent to which they align (Chakravarthy, 1986; Combs et al., 2005; Keats, 1988; Murphy et al., 1996; Rowe & Morrow, 1999). Richard et al. (2009) highlighted that organizational performance is a broad concept with multiple dimensions. When conducting research on organizational performance, it is crucial to align the research contexts with the appropriate measurement of organizational performance (Gentry & Shen, 2010; Merchant, 2006). The ongoing discussions have shown that financial performance or accounting

performance, and market performance have multiple dimensions that do not need to align. In fact, financial performance measures the bottom line of firms' activities during the year, while market performance by itself reflects the expectations of investors in the stock market.

Not as in developed stock markets, such as Europe and the US, where individual investors only own less than 30% of the whole market's outstanding shares and account for only 10 - 20% of daily transactions, in the Vietnamese stock market, individual investors play an extremely significant role as they account for an overwhelming proportion of the total trading volume of the whole market. The data from the Vietnam Securities Depository Center, as of June 2023, shows that the trading volume of individual investors accounts for nearly 90% of the total market volume, with transaction value occupies about 80 - 85% of the whole market's (Phan, 2024). Therefore, in the context of Vietnam, known as a frontier market with a dominant presence of individual investors, and where ESG is still at a primary stage with the very recent regulatory issuance and enforcements, investors may not have parallel views about ESG and stock price may not reflect the support for ESG implementation at the firm level.

A few studies on Vietnamese firms have explored the correlation between CSR and corporate financial performance (Nguyen et al., 2020; Nguyen et al., 2022). While these studies look at the impact of ESG activities on financial performance, no effort has been made toward exploring both the aspects of firm performance, financial or accounting performance, and market performance.

Although most of the researches in developed markets support the notion that ESG is beneficial for businesses, the inconsistent findings of how the investors perceive and are excited about ESG trigger a similar question about the case of Vietnam. This necessitates a rigorous examination of the influence of ESG factors on both the performance of company operations and equity investments in the Vietnam stock market. Given the unparalleled impacts of ESG on various firm performance dimensions, specifically financial or accounting performance versus market performance, this research aims to examine the relationship between ESG activities of companies in Vietnam and their financial performance and market performance.

2. Proposed hypotheses for the research

2.1. Financial performance and market performance

Numerous existing studies conceptualize firm performance as either a singular metric or a restricted set of metrics that primarily emphasize financial measures, such as revenue and profitability. This aggregated perspective is problematic, as firm performance consists of multiple dimensions rather than a singular focus (Chakravarthy, 1986; Combs et al., 2005; Murphy et al., 1996; Rowe & Morrow, 1999). Firm performance normally be evaluated through financial measures, such as Return On Assets (ROA) or Return On Equity (ROE), as these are normally linked to management incentives. Nevertheless, from the investors' perspective, meaningful firm performance is characterized by returns on investment, typically assessed via excess stock returns over a specified period or market value of stocks relative to their book values (market-to-book ratios). The divergence between financial performance and market performance impacts may be more pronounced in cases involving business innovations and new strategic decisions.

Previous research examining the impact of innovations on firm performance typically aggregates various performance dimensions into a single construct, often focusing on metrics such as revenue and profitability (Andries & Faems, 2013; Calantone et al., 2002; Han et al.,

1998; Zhou et al., 2005). Acknowledging market performance is anticipated to be particularly significant, given the diverse impacts of innovation on firm-level outcomes (Gök & Peker, 2017). Given that ESG is viewed as an innovative approach for enterprises to address the critical issue of climate change by managing the environmental and social impacts of their activities, investing in ESG is hypothesized to yield several benefits for firm performance, including enhanced customer and employee loyalty, as well as supply chain sustainability. In this context, it remains an open question whether investors and the market perceive ESG as a strategic advantage. Consequently, the theoretical and managerial implications of distinguishing between market and financial performance dimensions are significant in this regard.

2.2. ESG and financial performance and market performance

A study conducted by Ruf et al. (2001) demonstrates a direct correlation between Corporate Social Responsibility (CSR) and a company's Return On Equity (ROE). Additionally, research conducted by Alareeni and Hamdan (2020) further shown that ESG practices have a beneficial influence on corporate success. The authors found a positive correlation between greater ESG ratings and increased company performance, as measured by ROE and ROA.

The study conducted by Broadstock et al. (2021) investigates the impact of ESG factors on a firm's stock performance in financial markets. The study aims to determine if ESG performance may serve as an indicator of future financial performance and/or risk reduction. The study compares companies with high and low ESG ratings using China's CSI300 data set. The findings indicate that portfolios characterised by high ESG ratings tend to provide greater returns over those with low ESG scores.

Albuquerque et al. (2020) performed a comprehensive study of the whole U.S. stock market using the Refinitiv database. The study analysed the ESG scores (only using environmental (E) and social (S) scores) in 2018 and the total share returns and corporate profit volatility during the first quarter of 2020. The findings indicate that those with high ES scores demonstrated superior performance compared to others.

An analysis of 1750 publicly traded businesses in the United States, with the exclusion of financial and micro-cap companies, conducted by Bae et al. (2021), revealed no indication that Corporate Social Responsibility (CSR) had any impact on overall stock returns. This finding directly contradicts the prior research conducted by Albuquerque et al. (2020). Based on the findings of the preceding investigations, two hypotheses are put forward:

H1: Firms that perform well in ESG activities tend to have better financial performance

H2: Firms that perform well in ESG activities tend to have better stock performance

3. Data and research methods

This study conducts a three-step verification of the relationship between ESG scores and equity investment performance. Firstly, the ESG scores of enterprises were evaluated using the Kinder, Lydenberg, Domini, or KLD scale (Eccles & Stroehle, 2018; Kinder et al., 1993). Secondly, the investment performance was compared by constructing and reconstructing portfolios based on the methods of Broadstock et al. (2021). Finally, the relationship between ESG and investment performance was verified using the multi-variable regression method.

The correlation between ESG scores and business investment performance is validated by multi-variable regression analysis. This research used the KLD scale to assess the ESG scores of companies. The KLD scale, first created in 1989 and subsequently adopted and enhanced by

MSCI and renamed MSCI ESG STATS (Li & Wu, 2020); has 80 indexes, including 07 topics. Of these topics, one topic, Human Right, is not applicable to countries except for Mexico and countries in Africa. Therefore, in the case of Vietnam, only 06 topics are included in the ESG scale, including Community, Governance, Diversity, Employee, Environment, and Products.

The portfolios are constructed based on the ESG scores of companies, which are divided into two sets: one consisting of companies with high ESG scores and the other consisting of companies with low ESG scores. The portfolio was first formed and subsequently re-formed annually in June. This coincided with the public disclosure of company sustainability reports, as mandated in June 2018. Between 2018 and 2022, there were a combined total of four portfolio reformations.

Here are the steps to establish and rebuild the ESG portfolio:

Categorize corporate stocks by sector j ϵ J. Set i* represents the number of shares from industry j, while $i_{j*} \epsilon I_{j*}$ is a subset of stocks in each industry j.

Calculating ESG_j as the median of all ESG scores in industry j.

Categorize each stock in the set i ϵ I as either high ESG ($hESG_{ij}$) or low ESG ($lESG_{ij}$) based on the following principle:

$$hESG_{ij} = \begin{cases} 1, \ \forall \ ESG_{ij} \geq ESG_j \\ 0, \ otherwise \end{cases} \quad (1)$$

$$lESG_{ij} = \begin{cases} 1, \ \forall \ ESG_{ij} \leq ESG_j \\ 0, \ otherwise \end{cases} \quad (2)$$

Using the methodology of portfolio returns with equal value weight, the market performance of portfolios with high and low ESG scores in each sector are constructed, with R (%) as the stock price return:

$$R_{highESG_j} = \frac{1}{i^*} \sum R_{ij} \ x \ hESG_{ij} \ x \ K \quad (3)$$

$$R_{lowESG_j} = \frac{1}{i^*} \sum R_{ij} \ x \ lESG_{ij} \ x \ K \quad (4)$$

For $R_{i,j}$ represents the price return of i shares in the j sector.

The function K indicates whether $i \epsilon I_{j*}$ or not, assigning a value of 1 if it does and vice versa. This guarantees that only stocks from the j-sector contribute to the industry's particular portfolio. The $hESG_{ij}$ and $lESG_{ij}$ are used as price partitions within the high ESG and low ESG groups.

Finally, the portfolio returns consisting of stocks with high ESG and low ESG in the overall sample (highESG and lowESG) are computed using the equal returns method, with equal value weights assigned to each stock:

$$R_{highESG} = \frac{1}{J} \sum R_{highESG_j} \quad (5)$$

$$R_{lowESG} = \frac{1}{J} \sum R_{lowESG_j} \quad (6)$$

Here, j represents the individual sector, whereas J represents the overall number of sectors in the sample.

ESG influences enterprises' operations in various ways to generate value (Henisz et al., 2019). These include cost reduction through energy consumption reduction, enhancing production efficiency by increasing employee motivation and attracting talent, optimising sustainable value chains, avoiding legal actions and penalties, and attracting ESG-focused customers and investors. Building upon the Ruf et al. (2001) research model, the proposed research model aims to establish the relationship between ESG and firm performance:

$$ROE_{it} = \alpha + \beta_1 ESG\_Score_{it-1} + \beta_2 Size_{it-1} + \\ + \beta_3 BM_{it-1} + \beta_4 Cash_{it-1} + \beta_5 Lev_{it-1} + \beta_6 Idiorisk_{it-1} + \varepsilon_i \quad (7)$$

The dependent variable is the return on equity, ROE, of firm i at time t. We set independent variables at their lag values. The *ESG_Score* variable represents the performance of ESG activities measured by the KLD scale. We control for *Size*, measured by the natural logarithm of total assets; *BM*, computed by the value of equity divided by the market capitalization of the firm; *LEV*, referring to the financial leverage; *Idiorisk*, representing idiosyncratic risk of the company, measured by the variance of market-adjusted stock price returns; and *Cash*, measured by cash dividing by total assets.

We use two regression models to ascertain the correlation between ESG and business investment performance. The first model is based on Bae et al. (2021) regression model:

$$R_{it} = \alpha + \beta_1 ESG\_Score_{it} + \beta_2 ROE_{it} + \beta_3 Size_{it} + \beta_4 BM_{it} \\ + \beta_5 Cash_{it} + \beta_6 Lev_{it} + \beta_7 Idiorisk_{it} + \varepsilon_i \quad (8)$$

The dependent is the gross return and market-adjusted return of the stocks, respectively, used in two separate regressions. The stock return is determined by subtracting the closing price of the stock on day 0 from the closing price on day 1, and then dividing the result by the closing price on day 0. The market-adjusted return (AbR) is calculated by subtracting the market return (R_{mt}) from the stock return (R_{it}), AbR = $R_{it} - R_{mt}$. The stock return in the t-period is the total return on all trading days inside the t-period, computed as:

$$R_{j,t} = \left[\left(1 + R_{j,1}\right)\left(1 + R_{j,2}\right) \ldots \left(1 + R_{j,n}\right)\right] - 1 \quad (9)$$

With: $R_{j,t}$ represents the stock return in the t-period;

n is the number of trading days in the t-period.

The second proposed model incorporates the regression model developed by Alfraih (2018), which was executed with the BM dependent variable:

$$BM_{it} = \alpha + \beta_1 ESG\_Score_{it} + \beta_2 ROE_{it} + \beta_3 Size_{it} + \\ + \beta_4 Cash_{it} + \beta_5 Lev_{it} + \beta_6 Idiorisk_{it} + \varepsilon_i \quad (10)$$

The dependent variables in each of these models have a resemblance to the ESG_Score ROE regression model.

VNX-Allshare index is formed every year at the end of the first quarter. To be listed in this index the stock needs to satisfy market capitalization, liquidity, and free-float criteria[1] (Exchange Ho Chi Minh City Stock, Exchange Hanoi Stock Exchange, 2018). The number of

[1]Criteria for VNX-Allshare index are mentioned in Decision 01/QĐLT-SGDHCM-SGDHN

stocks in the index changes every year depending on the stock prices, liquidity, and free-floats at the time of forming the index at the end of each first quarter. Number of companies being included in the index ranged from 488 stocks in 2018 to 520 in 2021. By the methodology of the VNX-Allshare index, the stocks in the index basket are classified into three size groups, with the 50 largest firms being named *large-cap firms*, the next 150 largest firms being named *mid-cap firms*, and the remaining firms being named *small-cap firms*.

In the first step of this study, the ESG score is developed manually based on the KLD index. Companies' annual reports and sustainability reports are collected from the companies' websites and used as source information for ESG assessment. Due to the time-consuming manual process, the authors choose to reach an achievable number of firms for the assessment. A sample of 150 firms is chosen, 50 from each of the size groups, to make a representative sample for the study. Due to the limited ESG disclosure of firms, the final achievable sample was reduced to 139 (11 firms were dropped due to non-disclosure of ESG information). The collection of manual data took place in 2022 for the fiscal year of 2021, which yielded a time period of 2018 - 2021 for the study. The research hypothesis is tested using OLS, fixed-effect, and random-effect models. Furthermore, the Hausman test is used to ascertain the most suitable regression model.

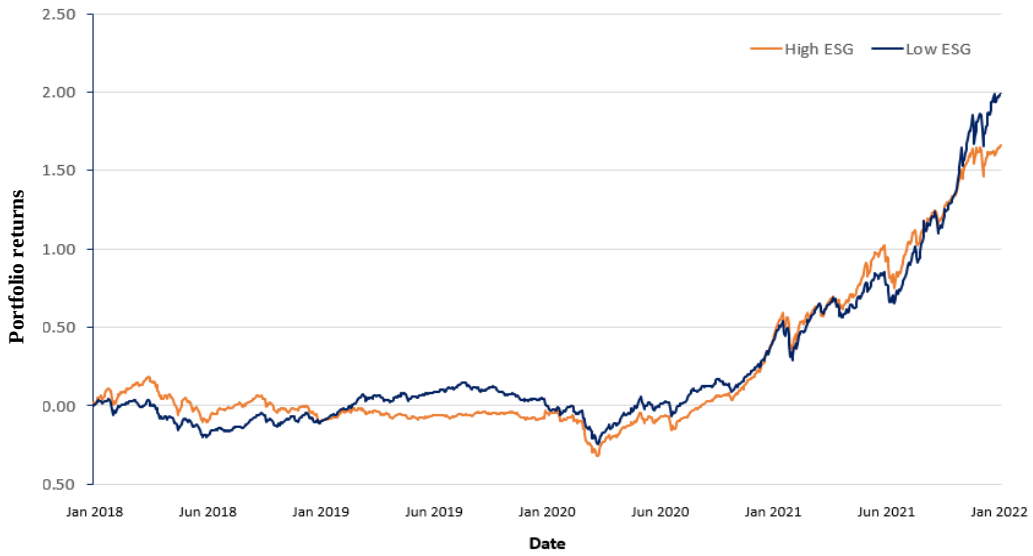
4. Results and discussion

4.1. Comparison of HighESG and LowESG portfolios

Two portfolios, one consisting of companies with high ESG scores and the other consisting of companies with low ESG scores, are formed and reformed annually in June. The ESG scores used for this process are based on data collected from January 2018 to December 2021. Figure 1 displays the portfolio returns for both portfolios throughout the whole observation period.

Figure 1

Portfolio Returns of High ESG and Low ESG Portfolios



Source. Authors

Both portfolios show a rise in value from January 1, 2018, to December 31, 2021, with the High ESG portfolio growing by about 1.65 times and the Low ESG portfolio growing by approximately 2.00 times. There is no inherent dominance in a certain portfolio. HighESG outperformed LowESG in terms of returns throughout 2018 and the first half of 2021. However, LowESG surpassed HighESG in returns for the other periods.

Furthermore, we have categorized the portfolios into sub-portfolios based on capitalization, namely Large, Mid, and Small, in order to examine the relationship between high ESG and low ESG by market capitalization. Categorization and resetting are performed using identical methods. The number of firms in each portfolio is shown in Table 1. Due to the small number of firms and lack of representation in the market for small capitalization groups arising from the top-down sampling of capital value, cataloging and comparison should not be conducted.

Table 1

Number of Enterprises in Portfolios

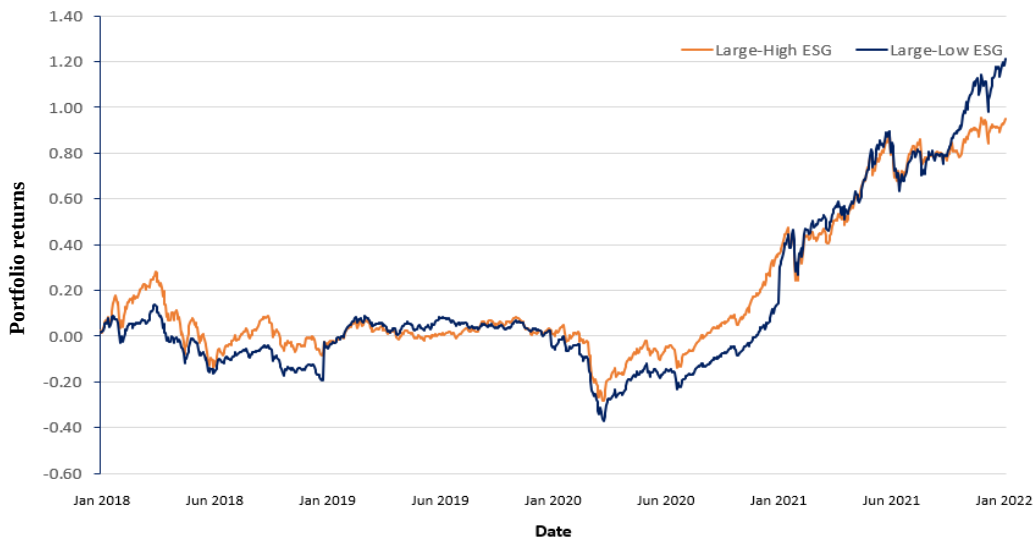
Portfolio	**2018**	**2019**	**2020**	**2021**
HighESG	73	72	72	72
LowESG	66	67	67	67
Large-HighESG	28	28	28	26
Large-LowESG	25	21	22	23
Mid-HighESG	37	39	39	37
Mid-LowESG	31	33	32	32

Source. Authors

The results of comparing two sets high ESG and low ESG portfolios of large-cap and mid-cap groups are shown in Figure 2 and Figure 3, respectively. Sub-portfolios categorised by high and low ESG based on capitalization have comparable outcomes to the overall portfolios. Specifically, there is no discernible evidence indicating complete advantage in either high or low ESG portfolios.

Figure 2

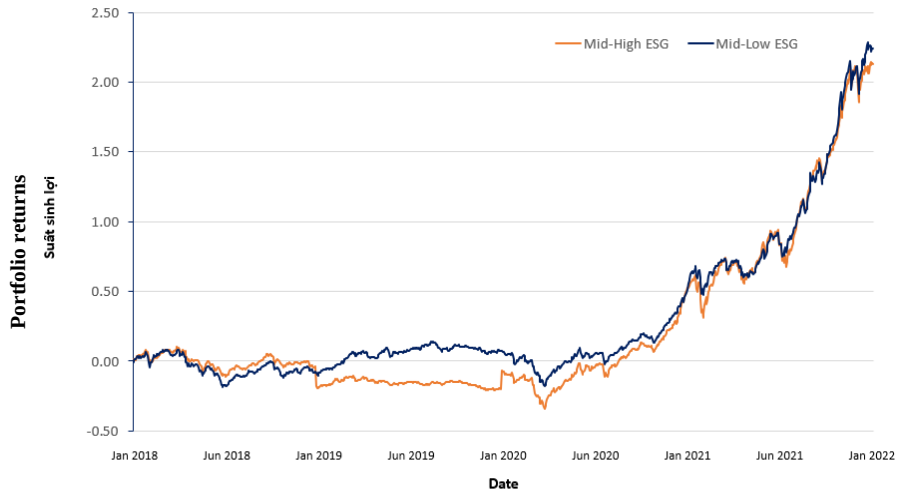
Portfolio Returns of Large-HighESG and Large-LowESG Portfolios



Source. Authors

Figure 3

Portfolio Returns of Mid-HighESG and Mid-LowESG Portfolios



Source. Authors

The comparison of performance across the ESG portfolios is shown in Table 2 using the t-test of the average returns of portfolios. The result shows that there is no statistically significant difference in the average return between the HighESG and LowESG portfolios at a 5% significance level. In the group with large capitalization, the Large-HighESG portfolio realizes significantly greater returns statistically (0.18618 ± 0.009975) compared to the Large-LowESG (0.152458 ± 0.011633), with a t-value of 2.1944 and a p-value of 0.028. In contrast, within the mid-cap group, the Mid-LowESG portfolio has a larger statistically significant return (0.301877 ± 0.018061) compared to the Mid-HighESG portfolio (0.225315 ± 0.018061), with a t-value of -3.0614 and a p-value of 0.0022.

Table 2

T-test of HighESG - LowESG Portfolios

Portfolios	**Mean (High)**	**Std. Err. (High)**	**Mean (Low)**	**Std. Err. (Low)**	**Diff**	**T-value**	**Pr (T < t)**	**Pr (|T| > |t|)**	**Pr (T > t)**
HighESG versus LowESG	0.2258	0.0152	0.2435	0.0153	-0.0176	-0.8161	0.2073	0.4145	0.7927
Large-HighESG versus Large-LowESG	0.1862	0.0099	0.1525	0.0116	0.0337	2.1944	0.9860	0.0280	0.0140
Mid-HighESG versus Mid-LowESG	0.2253	0.0181	0.3019	0.0173	-0.0766	-3.0614	0.0011	0.0022	0.9989

Source. Synthesised results from STATA 17 software

The findings indicate that ESG-based investing strategies in the Vietnamese market from 2018 to 2021 did not earn good market performance for investors. However, if investors only choose large-cap firms for their stock portfolio, prioritizing companies with favorable ESG scores would provide superior results. Even so, this does not apply to a consortium of firms inside a mid-capitalization group.

4.2. Regression results

Table 3 presents the results of the regression of stock return on ESG. The dependent variables are the cumulative stock returns of the company (columns (1) and (3)) and the abnormal cumulative stock returns (columns (2) and (4)). The independent variable of interest, ESG, is used to determine the impact of ESG on stock returns. Regression analysis was conducted using Stata 17. The Hausman test indicates that the Fixed-Effects regression Model (FEM) is the most suitable for the dataset. The author performed tests for heteroscedasticity and autocorrelation on the residuals, and then employed a fixed-effects model combined with vce(robust) to obtain adjusted results to satisfy the assumptions for the residuals.

The β coefficient of ESG is not statistically significant when regressing with both accumulative raw return and accumulative abnormal return of the firm, suggesting that ESG has no impact on stock return. This finding does not provide evidence in favour of the hypothesis that firms with better ESG scores would have greater stock returns. The findings align with the research conducted by Bae et al. (2021), which indicates that there is no discernible influence of ESG factors on stock performance. The lack of statistical significance in the β of postcovid*ESG suggests that ESG does not have a discernible effect on stock returns during the post-epidemic period. Regarding control factors, our findings align with those of Bae et al. (2021), Engelhardt et al. (2021). Specifically, we observed highly statistically significant negative coefficients for Book-to-Market and statistically significant positive coefficients for ROE and Idiorisk on stock returns.

Table 3

Impacts of ESG on Firm Stock Return

R	**(1)** **Raw returns**	**(2)** **Abnormal returns**	**(3)** **Raw returns**	**(4)** **Abnormal returns**
ESG	-0.0048	-0.40	0.0072	-0.0048
	(-0.48)	(0.0127)	(0.26)	(-0.15)
L*ESG			-0.0224	-0.0149
			(-0.67)	(-0.41)
M*ESG			-0.0329	-0.0204
			(-0.99)	(-0.46)
postcovid*ESG			0.0011	-0.0063
			(0.12)	(-0.51)
ROE			1.6103***	2.1187**
			(2.90)	(2.51)
BM			-1.1033***	-1.0072***
			(-10.80)	(-7.82)
Cash			1.2716	1.8204
			(1.25)	(1.41)
Lev			0.7639	1.1586
			(1.58)	(1.26)
Idiorisk			0.1414	0.3339**
			(1.43)	(2.17)

R	(1) Raw returns	(2) Abnormal returns	(3) Raw returns	(4) Abnormal returns
L			0.5280*	0.8449***
			(1.75)	(2.66)
M			0.6018**	0.8419***
			(2.57)	(3.08)
postcovid			0.4917***	0.3219***
			(5.94)	(2.79)
_cons	0.5113***	0.4148***	0.1121	-0.4469
	(6.40)	(4.72)	(0.31)	(-0.69)
N	556	556	489	491

Note. t-value in round brackets
* p < 0.1; ** p < 0.05; *** p < 0.01
Source. Synthesised results of regression analysis from STATA 17 software

The findings of the verification of the model for studying the Book-to-Market ratio based on ESG are shown in Table 4. The insignificant β coefficient of ESG for B/M suggests that the market and investors' expectations about a business's potential to create future revenue are not influenced by their appraisal of the business's ESG performance.

Table 4

Impacts of ESG on Book-to-Market ratio (BM)

	BM	BM	BM	BM
ESG	-0.0295***	-0.0075	-0.0096	-0.0108
	(-4.05)	(-1.11)	(-0.91)	(-0.61)
L*ESG			-0.0312	-0.0181
			(-1.30)	(-0.93)
M*ESG			-0.0122	-0.0033
			(-0.50)	(-0.18)
Size		-0.2710***		
		(-4.53)		
postcovid*ESG				0.0276***
				(4.40)
ROE		-1.0148***	-1.0327***	-1.3852***
		(-4.18)	(-4.08)	(-6.04)
Cash		-1.2457***	-1.1945***	-1.0619***
		(-2.81)	(-2.61)	(-1,31)
Lev		-0.1448	-0.4842***	-0.4481***
		(-0.63)	(-2.56)	(-5.11)
Idiorisk		-1.0560***	-1.1425***	-0.6479***
		(-7.90)	(-7.43)	(-3.17)

	BM	**BM**	**BM**	**BM**
L			-0.1785	-0.1676
			(-0.85)	(-1.22)
M			-0.0738	-0.0664
			(-0.36)	(-0.59)
postcovid				-0.5472***
				(-10.57)
_cons	1.1109***	4.8595***	1.6351***	1.8689***
	(18.19)	(6.86)	(8.14)	(14.95)
N	544	493	493	493

Note. t-value in round brackets
* p < 0.1; ** p < 0.05; *** p < 0.01
Source. Synthesised results of regression analysis from STATA 17 software

The t-test results comparing the lowESG and highESG portfolios, regression of stock return based on ESG, and regression of book-to-market ratio based on ESG indicated that active-ESG firms did not achieve superior investment performance compared to passive ones. This will directly influence the investor's decision to assess the profitability of a business through the measurement of the company's ESG quality, and indirectly affect the level of interest in ESG by markets and investors.

Table 5 presents the outcome of the regression analysis that examines the influence of ESG on the investment performance of the business, as measured by ROE. The presence of a positive and statistically significant beta factor of 1% indicates that there is a favourable influence of ESG on the ROE of the firm. Specifically, a 1 point increase in ESG is connected with a 0.02 point increase in ROE. This outcome aligns with research conducted by Ruf et al. (2001), which shows that corporations exhibit elevated social responsibility scores and increased ROE. Concerning the control variables, we observed a positive correlation between increased risk and greater ROE.

Table 5

Impact of ESG on Return On Equity (ROE)

	ROE	**ROE**	**ROE**	**ROE**
lagESG	0.0166**	0.0182**	0.0203*	0.0201*
	(2.50)	(2.59)	(1.45)	(1.48)
lagSize		-0.0803		
		(-0.50)		
L*lagESG			-0.0072	-0.0074
			(-0.43)	(-0.47)
M*lagESG			0.0047	0.0052
			(0.32)	(0.37)
Postcovid*lagESG				-0.0031
				(-0.85)
lagBM		0.0104	0.0347	0.1116**
		(0.29)	(1.02)	(2.57)

	ROE	**ROE**	**ROE**	**ROE**
lagCash		0.0789	0.0622	0.1161
		(0.23)	(0.19)	(0.41)
lagLev		0.3089	0.2642	0.2064
		(1.51)	(1.42)	(1.39)
lagIdiorisk		0.0303***	0.0305**	0.0368***
		(2.67)	(2.50)	(2.97)
L			-0.3842**	-0.3911***
			(-2.46)	(-2.67)
M			-0.2453*	-0.2623**
			(-1.81)	(-2.12)
postcovid				0.1190***
				(2,99)
_cons	-0.0185	0.8261	0.0436	-0.0678
	(-0.46)	(0.40)	(0.26)	(-0.39)
N	520	491	491	491

Note. t-value in round brackets
* p < 0.1; ** p < 0.05; *** p < 0.01
Source. Synthesised results of regression analysis from STATA 17 software

5. Conclusion

The research refutes the premise of the study that implementing ESG practices in a firm would result in investment returns for investors driven by ESG. The finding shows that ESG has no impact on stock returns for both the raw stock return and market-based stock return. Additionally, ESG factors do not influence the market price of the company, as shown by the B/M ratio. However, ESG positively influences company performance by enhancing ROE. The disparities in the correlation between the ESG performance of a company and its financial performance, as opposed to its market performance, indicate that while ESG has a favorable impact on business performance, the market and investors do not exhibit interest in investing in ESG activities. Consequently, investing in active ESG stock portfolios does not generate superior returns, except for the case of large capitalization stocks.

ESG investment strategies, often referred to as Sustainable Investment Strategies, are seen by developed countries as a sustainable approach to investing. These strategies prioritize investments that consider not just profitability but also the environment, human well-being, and the overall economy. This method, as its name suggests, is regarded as a prudent and enduring investing approach, mitigating multiple risks for investors. Contrary to expectations, the research reveals that investors in Vietnam's market have little interest in ESG. As a result, the market's expectations for ESG activities by firms do not align with the potential benefits that ESG may provide to these enterprises.

Climate change has emerged as a significant global issue in recent years. The Vietnamese government has shown significant dedication to advancing ESG principles and addressing climate change. This commitment is seen in the Prime Minister's pledge at COP26 to adopt a Net-Zero approach and establish rules pertaining to transparency and anti-climate legislation.

Vietnamese markets must also conform to global standards and comply with government rules. Vietnamese businesses need to prioritize the integration of ESG practices into their operations. Additionally, market investors are exerting both support and pressure on businesses to apply ESG practices. This study aims to elucidate the extent of market interest in ESG and the significance of ESG investing for both companies and investors. It is anticipated that this study will foster greater investor interest in adopting ESG practices and prompt investors to prioritize ESG indicators when making investment decisions. For the context of Vietnam, the awareness, understanding, and support for ESG by investors are significant to make a change. ESG does not only support the planet, but it can also bring long-term sustainable growth to firms through customers' loyalty, reputation, and financial performance of firms.

Due to the manual assessment of ESG information of the listed Companies in this study, only a limited sample of firms is covered. Future research should elaborate on a larger sample to facilitate more robust findings and make the study a more significant contribution.

Conflict of Interests

We commit to retaining the copyright of the articles, ensuring that the articles are unpublished prior to submission, and refraining from submitting the articles to other periodicals throughout the review time

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