

Risk-Adjusted Returns of Ethical Companies

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This study examines the investment performance of companies recognized for their socially responsible behavior, specifically focusing on the long-time honorees of Ethisphere's World's Most Ethical Companies list. The analysis includes 28 publicly traded organizations from sectors such as Technology, Financials, and Consumer Goods, with stock returns and sector Net Asset Values (NAVs) used to assess risk-adjusted performance. Key metrics include the Sharpe Ratio, Jensen Alpha, and Treynor Ratio, all of which measure returns relative to risk. Results show that while more than half of the companies underperformed their respective sectors, the overall ethical portfolio generated positive risk-adjusted excess returns, primarily driven by strong performance from the technology sector. These findings suggest that ethical companies may provide valuable investment opportunities, particularly in sectors like technology and finance.

Keywords: socially responsible companies, risk-adjusted returns, Sharpe Ratio, Jensen Alpha, Treynor Ratio, Ethisphere, ethical investment, stock performance, sector benchmark, investment performance, financial performance, ethical portfolio, public companies, technology sector, financial sector

INTRODUCTION

Ethisphere has recognized the World's Most Ethical Companies each year since 2006. They assert investors, employees, and other stakeholders value companies with strong ethical practices for good reason: these companies outperform the competition, are better places to work, and make a positive impact on their communities. Ethisphere's website states, "good ethics is good business." It is important to recognize that sustainable finance is one of the biggest current finance trends and sustainable return requires sustainable corporate ethical behavior.

For 2022, 136 organizations are selected for the prestigious designation. The honorees are from 22 countries and 45 industries. The majority of companies on the list are based in the U.S. (99), while 37 of the companies are from countries other than the U.S. Five companies from Canada were honored, the second largest number from a single country. The companies represent 45 industries, and eleven industries have only one company representative. The Energy and Utilities industry has nine companies among the honorees, the largest number from a single industry. The Industrial Manufacturing industry and Technology

industry each had seven companies recognized, and the Automotive industry has six companies on the list. Among the group are 14 companies receiving the recognition for the first time. Six companies have been honored 16 times, every year of Ethisphere's recognition program.

The basis of the evaluation and selection process for the World's Most Ethical Companies is a rating system designed by Ethisphere which produces a corporate Ethics Quotient (EQ). Applicants respond to more than 200 multiple-choice and text questions designed to reflect a company's ethical behavior in a measurable, consistent, and standardized way. All participants receive their overall EQ score and their scores in all five areas assessed as compared to the honorees. The five categories and their respective weights in the composite EQ Score are:

- Ethics Quotient (EQ)
- Governance 15%
- Ethics and Compliance Program 35%
- Culture of Ethics 20%
- Environmental and Societal Impact 20%
- Leadership and Reputation 10%

Ultimately, publicly-traded corporations in the U.S. are expected to maximize returns for their stockholders. Investors use various measures and variables, including Corporate Social Responsibility (CSR), to select companies for their stock portfolios. The purpose of this study is to determine if a portfolio comprised of companies with a history of ethical behavior and social responsibility outperform their sectors. Do those companies earn higher risk-adjusted returns?

LITERATURE REVIEW

The literature surrounding the relationship between corporate social responsibility (CSR) and financial performance reveals a nuanced landscape influenced by various factors, including ideological biases, methodological constraints, and contextual considerations. A pivotal study conducted by Aupperle et al. (1985) adopted a distinctive approach by employing a forced-choice instrument administered to corporate CEOs to assess the association between social responsibility and profitability. Surprisingly, their findings did not reveal any clear relationship, emphasizing the intricate nature of the interplay between CSR initiatives and financial outcomes.

Simpson and Kohers (2002) conducted a study specifically within the banking industry, investigating the linkage between CSR and financial performance. Their research, focused on data from commercial banks, corroborated prior evidence from Fortune 500 corporations, indicating a positive correlation between CSR and financial performance, thus highlighting the potential universality of this phenomenon across sectors.

A meta-analysis conducted by Orlitzky et al. (2003) synthesized numerous studies to evaluate the correlation between CSR and financial performance. Their analysis concluded that while the correlation is modest, there exists a small but positive relationship, suggesting that engaging in CSR activities can contribute to improved profitability in the long term. Building on this,

Amidst the affirmations of a positive association between CSR and financial performance, challenges persist in establishing causality and employing comprehensive measures of CSR. Wood's (2010) seminal study identified a predominant focus on firm-centric perspectives in CSP research, urging a shift towards examining stakeholder and societal impacts. This aligns with broader calls for interdisciplinary approaches to enrich scholarship and address critical research gaps.

Further insights were provided by Cek and Eyupoglu's (2020) investigation into the influence of Environmental, Social, and Governance (ESG) factors on the economic performance of U.S. firms. Their study underscored the significance of social and governance factors in driving economic performance, while environmental factors showed comparatively less influence. Similarly, Shabbir and Okere's (2020) research in Nigerian manufacturing firms shed light on the positive correlation between environmental investments and financial performance, contributing valuable insights into the realm of corporate social

responsibility, particularly concerning the impact of environmental variables on both the global workforce and local communities. Matuszewska-Pierzynka (2021) hypothesized a positive relationship between a corporation's sustainability and its total revenue. Corporate sustainability is the ability to meet the needs of existing and future stakeholders. The results did not provide evidence of a relationship.

Shi and Veenstra's (2021) exploration of the moderating effect of cultural values on the CSP-CFP relationship revealed intriguing insights, suggesting that high CSP aligns positively with financial performance in cultures emphasizing collectivism and monumentalism. This stresses the importance of contextual factors in shaping the outcomes of CSR initiatives.

Dominick et al. (2021) delved into the espoused values of top-rated workplaces, identifying key themes and implementation practices that drive organizational success. Their findings underscore the significance of aligning organizational values with employee experiences and practices, emphasizing the role of authentic leadership and organizational culture in fostering employee well-being and satisfaction.

In summary, while some studies affirm a positive relationship between CSR and financial performance, the literature underscores the need for further research to address methodological challenges, deepen contextual understanding, and inform managerial decision-making effectively.

RESEARCH METHODOLOGY

The 2022 list consists of 136 organizations. This study focuses on companies with a history of socially responsible behavior. Among the 2022 recipients, 50 organizations have received the honor ten times or more, and they are initially considered for this study.

Risk-adjusted stock returns are used as the measure of investment performance in this study. Of the pool of ethical organizations, 35 are companies whose shares are publicly traded on U.S. exchanges and are retained for analysis while 15 organizations are eliminated. The group excluded consists of private companies, foreign companies whose shares do not trade in the U.S., and not-for-profit organizations; therefore, it is not possible to compute their monthly returns.

Monthly stock prices and monthly sector Net Asset Values (NAV) for April 30, 2012, through March 31, 2023, are obtained from Bloomberg. Five companies are deleted due to missing stock price data in the database. Finally, two companies of the remaining 30 are in the Real Estate Sector, and Real Estate sector data is not available for the entire ten-year period of the study. Real Estate firms were separated out from the Financial sector in 2016. The final pool of organizations for this study consists of 28 companies. The sector representation is as follows: Technology (5 companies), Financial (5 companies), Consumer Discretionary (5 companies), Consumer Staples (3 companies), Industrial (8 companies), and Health Care (2 companies).

The Sharpe Ratio is used as the benchmark of financial performance. It can be used to evaluate a single stock, a portfolio of stocks, or a sector. The formula produces a risk-adjusted return. The Ratio reports the excess return per unit of total risk. For example, a Sharpe Ratio of +.5 means an investment is producing .5% return above the risk-free rate for 1% of risk. The formula is:

$$\text{Sharpe Ratio} = (R_x - R_{rf})/SD_x \quad (1)$$

where R_x = investment or portfolio x return for the period,
 R_{rf} = risk-free rate of return for the period, and
 SD_x = standard deviation of investment or portfolio x return for the period.

The Sharpe Ratios of the long-time socially responsible companies are compared to their sector's Sharpe Ratios. Sector risk-adjusted returns are the benchmark rather than an overall market risk-adjusted return for several reasons. First, several sectors are not represented in the final pool of 28 companies which comprise the ethical portfolio; therefore, those sectors should not be included in the performance benchmark. Second, the number of companies from the represented sectors is not equal. Finally, companies

face different regulatory and operating environments depending on their sector. For these reasons, the more narrowly defined sector performance benchmark is used.

Company monthly stock returns, and Sector monthly NAV returns are computed for a total of 132 observations. Monthly 10-year Treasury Yields are used to approximate the risk-free rate of return. Monthly risk premiums are calculated ($R_x - R_{rf}$) for each company and sector. The average monthly risk premium and the standard deviation of the monthly risk premiums for the 28 companies and their sectors are calculated so that the Sharpe Ratios for each company and each sector can be derived.

A socially responsible company outperformed all companies in its sector if its Sharpe Ratio is greater than the sector Sharpe Ratio for the time period of the study, and the Sharpe Ratio difference is positive. The company produced higher excess returns to risk than the sector. The company underperformed relative to its sector if its Sharpe Ratio is less than the sector Sharpe Ratio, and the Sharpe Ratio difference is negative.

The Jensen Alphas and Treynor Ratios for the ethical companies are also reported. The Jensen Alpha is a measure of return above or below the Capital Asset Pricing Model expected return. The Treynor Ratio reports risk-adjusted return based on systematic risk. The formulas and variables are defined below.

$$\text{Jensen's Alpha} = R_x - [R_{rf} + B_x(R_m - R_{rf})] \quad (2)$$

where R_x = investment or portfolio x return for the period,
 R_{rf} = risk-free rate of return for the period,
 B_x = Beta or systematic risk of x for the period, and
 R_m = market rate of return for the period.

$$\text{Treynor Ratio} = (R_x - R_{rf})/B_x \quad (3)$$

where R_x = investment or portfolio x return for the period,
 R_{rf} = risk-free rate of return for the period, and
 B_x = Beta or systematic risk of x for the period.

RESULTS

The Sharpe Ratio results for the 28 companies and their sectors are reported in Table 1. The Jensen Alphas and Treynor Ratios for the ethical companies are also reported.

TABLE 1
SHARPE, JENSEN, AND TREYNOR RATIO RESULTS FOR SOCIALLY RESPONSIBLE COMPANIES

Ticker	Company Name	Bloomberg Sector	Company SHARPE	Sector SHARPE	Difference	Company JENSEN	Company TREYNOR
ACN	Accenture plc	Technology	0.165130	-0.301559	0.466689	0.001365	0.008875
AFL	AFLAC Incorporated	Financials	0.125460	0.130676	-0.005216	-0.000745	0.006999
AJG	Arthur J. Gallagher and Company	Financials	0.223946	0.130676	0.093270	0.004552	0.012578
APT	Aptiv plc	Consumer	0.138913	0.160280	-0.021367	0.001550	0.008648
CL	Colgate-Palmolive Company	Discretionary	0.050204	0.141064	-0.090860	-0.002543	0.003574
CMI	Cummins Inc	Consumer Staples	0.079611	0.139978	-0.060368	-0.004193	0.004405
CRM	Salesforce, Inc	Industrials	0.157508	-0.301559	0.459068	0.004396	0.011367
DE	Deere and Company	Technology	0.176542	0.139978	0.036564	0.005072	0.012795
ECL	Ecolab Inc (NOTE: ticker delisted)	Industrials	0.122842	0.160280	-0.037438	0.000077	0.007793
ETN	Eaton Corporation plc	Consumer	0.139298	0.139978	-0.000680	-0.001023	0.006940
HAS	Hasbro Inc	Discretionary	0.037869	0.160280	-0.122411	-0.005049	0.002679
HCA	HCA Healthcare, Inc.	Health Care	0.215663	0.216242	-0.000578	0.010436	0.016123
HIG	Hartford Financial Services Inc	Financials	0.132486	0.130676	0.001811	-0.000166	0.007573
HSIC	Henry Schein, Inc	Health Care	0.116950	0.216242	-0.099291	0.000170	0.007885
INTC	Intel Corporation	Technology	0.012876	-0.301559	0.314435	-0.005219	0.001159
IP	International Paper	Consumer	0.017100	0.160280	-0.143180	-0.008677	0.000963
JCI	Johnson Controls International plc	Discretionary	0.100485	0.139978	-0.039494	-0.000686	0.007001
K	Kellanova	Industrials	0.016685	0.141064	-0.124378	-0.003695	0.001336
MAN	MAN Group plc	Consumer Staples	0.068528	0.139978	-0.071451	-0.007731	0.003550
MSFT	Microsoft Corp	Industrials	0.265288	-0.301559	0.566847	0.008979	0.017432
ONB	Old National Bancorp	Technology	0.019465	0.130676	-0.111211	-0.006894	0.001244
PAYX	Paychex Inc	Financials	0.164451	0.139978	0.024473	0.001927	0.009747
PEP	PepsiCo Inc	Industrials	0.158129	0.141064	0.017065	0.001945	0.011005
ROK	Rockwell Automation Inc	Consumer Staples	0.137419	0.139978	-0.002560	0.000653	0.008215

A positive difference indicates a company that outperformed its sector, and a company that underperformed its sectors has a negative difference. The positive and negative differences show that 12 of the socially responsible companies outperformed the companies in their sectors, and 16 socially responsible companies underperformed when compared to their sectors for the time period of the study. Microsoft was the best investment of the 28 and outperformed its sector by +.5668. The next two best investments are Accenture and Salesforce, Inc. The three top performers are from the technology sector. The worst investment for the period was International Paper with a Sharpe Ratio that is .1432 less than the consumer discretionary sector Sharpe Ratio.

The company Sharpe Ratios are summed to further analyze the investment performance of the portfolio of ethical companies. If the sum of the differences between company Sharpe Ratios and sector Sharpe Ratios is zero, the portfolio offers the same risk-adjusted return as the sectors. In spite of more companies in the ethical portfolio underperforming relative to their sectors, the Sharpe Ratio sum of differences is +1.5528. The companies that outperformed their sectors did so to a greater degree than the companies that underperformed their sectors. The ethical portfolio produced an additional 1.5528% excess return for every additional 1% of total risk or volatility from April 2013 through March 2023.

The Jensen's Alpha results are also inconclusive. Fifteen of the 28 companies earned returns in excess of CAPM expected return, while 13 companies had negative Alphas indicating the companies earned returns that were less than CAPM expected return. The aggregate Alpha is +0.00145, however, which supports the hypothesis of a positive relationship between ethical corporate behavior and investment returns. Finally, only one company's Treynor Ratio was negative, and the aggregate systematic risk-adjusted return of +0.2228.

Table 2 presents the companies grouped by sector to identify their contributions to the ethical portfolio's overall performance.

TABLE 2
SHARPE, JENSEN, AND TREYNOR RATIO RESULTS FOR SOCIALLY RESPONSIBLE COMPANIES, GROUPED BY SECTOR

Company	Sector	Company Sharpe	Sector Sharpe	Sharpe Differences	Jensen Alpha	Treynor Ratio
Accenture plc	Technology	0.165130	-0.301559	0.466689	0.001365	0.008875
Salesforce, Inc	Technology	0.157508	-0.301559	0.459068	0.004396	0.011367
Intel Corporation	Technology	0.012876	-0.301559	0.314435	-0.005219	0.001159
Microsoft Corp	Technology	0.265288	-0.301559	0.566847	0.008979	0.017432
Teradata Corporation	Technology	0.009617	-0.301559	0.291942	-0.010053	-0.000865
SHARPE Ratio Sum				+2.099		
AFLAC Incorporated	Financial	0.125460	0.130676	-0.005216	-0.000745	0.006999
Arthur J. Gallagher and Company	Financial	0.223946	0.130676	0.093270	0.004552	0.012578
Hartford Financial Services Inc	Financial	0.132486	0.130676	0.001811	-0.000166	0.007573
Old National Bancorp	Financial	0.019465	0.130676	-0.111211	-0.006894	0.001244
Visa Inc	Financial	0.261691	0.130676	0.131015	0.008086	0.016664
SHARPE Ratio Sum				+1.097		
Aptiv plc	Consumer Discretionary	0.138913	0.160280	-0.021367	0.001550	0.008648
Ecolab Inc (NOTE: ticker delisted)	Consumer Discretionary	0.122842	0.160280	-0.037438	0.000077	0.007793
Hasbro Inc	Consumer Discretionary	0.037869	0.160280	-0.122411	-0.005049	0.002679
International Paper	Consumer Discretionary	0.017100	0.160280	-0.143180	-0.008677	0.000963
Starbucks	Consumer Discretionary	0.153599	0.160280	-0.006682	0.003992	0.012846
SHARPE Ratio Sum				-0.3311		
Colgate-Palmolive Company	Consumer Staples	0.050204	0.141064	-0.090860	-0.002543	0.003574
Kellanova	Consumer Staples	0.016685	0.141064	-0.124378	-0.003695	0.001336
PepsiCo Inc	Consumer Staples	0.158129	0.141064	0.017065	0.001945	0.011005
SHARPE Ratio Sum				-0.1982		
Cummins Inc	Industrials	0.079611	0.139978	-0.060368	-0.004193	0.004405

The companies in the technology sector added the most to the overall positive portfolio Sharpe Ratio result. Four of the five companies had Sharpe Ratios that were greater than the technology sector's Sharpe Ratios. The five companies in our ethical portfolio from the financial sector also contributed to the overall positive Sharpe Ratio result for the portfolio but to a much lesser degree than the five technology companies, +2.099 versus +0.1097. Three of the financial sector companies outperformed the sector while two underperformed relative to the sector. The Jensen Alphas and Treynor Ratios for these companies are consistent with the Sharpe Ratio results. A portfolio based on sector Selection attributes such as technology and financial sectors can lead to a higher return adjusted to risk investment.

As a group, the remaining 18 companies from the consumer discretionary, consumer staples, industrials, and health care sectors underperformed their sectors and negatively impacted the overall ethical portfolio Sharpe Ratio. All five consumer discretionary companies underperformed as compared to their sector, and both health care companies underperformed relative to the sector. The consumer discretionary, consumer staple, and industrial sectors show positive risk-adjusted return only on the Treynor Ratio and negative on the Sharpe Ratio and Jensen Alpha. The health care sector exhibited positive risk adjusted return on Treynor Ratio and Jensen's Alpha but negative return when using Sharpe Ratio.

CONCLUSION

Companies with shares that are traded on U.S. exchanges are easily available to investors for inclusion in their stock portfolios. Numerous variables are used in making their selections. The risk-adjusted returns of the publicly-traded companies with a long history of ethical behavior are analyzed to determine if they outperform all of the companies in their sectors. The Sharpe Ratios of companies that have been honored ten or more years by Ethisphere as one of the World's Most Ethical Companies are compared to the Sharpe Ratios for their sectors. Additionally, Jensen Alphas and Treynor Ratios are computed for each company.

Results are mixed. More than half of the 28 companies that comprise the ethical portfolio underperformed. The Sharpe Ratios for the 16 underperformers were less than the Sharpe Ratios for their sectors with negative differences. But when the differences between company Sharpe Ratios and sector Sharpe Ratios are summed, the overall result is +1.5528 which is evidence that the ethical portfolio generated more risk-adjusted excess returns for investors than their sectors. Further analysis reveals the three companies from the technology sector are the primary source of excess returns for the portfolio of 28 companies.

A portfolio based on sector Selection attributes such as technology and financial sectors can lead to a higher return adjusted to risk investment.

REFERENCES

- Aupperle, K., Carroll, A.B., & Hatfield, J.D. (June 1985). An empirical examination of the relationship between corporate social responsibility and profitability. *The Academy of Management Journal*, 28(2), 446–463.
- Cek, K., & Eyupoglu, S. (2020). Does environmental, social and governance performance influence economics performance? *Journal of Business Economics and Management*, 21(4), 1165–1184. ISSN 1611-1699/eISSN 2029-4433. <https://doi.org/10.3846/jbem.2020.12725>
- Dominick, P.G., Iordanoglou, D., Prastacos, G., & Reilly, R.R. (2021). Espoused values of the “Fortune 100 Best Companies to Work For”: Essential themes and implementation practices. *Journal of Business Ethics*, 173, 69–88. <https://doi.org/10.1007/s10551-020-04564-8>
- Matuszewska-Pierzynka, A. (2021, December). Relationship between corporate sustainability performance and corporate financial performance: Evidence from U.S. Companies. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 16(4), 885–906.
- Orlitzky, M., Schmidt, F.L., & Rynes, S.L. (2003). Corporate social and finance performance: A meta analysis. *Organization Studies*, 24(3), 403–441. <https://doi.org/10.1177/0170840603024003910>
- Pollock, M.A. (2023, February 4). Why is it so hard to be an ESG Investor? *Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/esg-investor-hard-11675453200>
- Shabbir, M.S., & Wisdom, O. (2020). The relationship between corporate social responsibility, environmental investments and financial performance: Evidence from manufacturing companies. *Environmental Science and Pollution Research*, 27, 39946–39957. <https://doi.org/10.1007/s11356-020-10217-0>
- Shi, W., & Veenstra, K. (2021). The moderating effect of cultural values on the relationship between corporate social performance and firm performance. *Journal of Business Ethics*, 174, 89–107. <https://doi.org/10.1007/s10551-020-04555-9>
- Simpson, W.G., & Kohers, T. (2002). The link between corporate social and financial performance: Evidence from the banking industry. *Journal of Business Ethics*, 35, 97–109.
- Wood, D.J. (2010). Measuring Corporate Social Performance: A Review. *International Journal of Management Reviews*, 12(1), 50–84. DOI: 10.1111/j.1468-2370.2009.00274.ijmr_274_50