ESSBC JOURNAL OF BUSINESS STUDIES
ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

Linkage between Sustainability Practices and Financial Performance: A Study of Select Indian Companies

Dr. Monojit Saha
Assistant Professor, Department of Commerce
Kalna College, Kalna, Purba Bardhaman, West Bengal, India

Abstract:

The contemporary narrative of business growth and progress underscores the imperative of sustainability, prompting a shift in management ethos towards the welfare of all stakeholders and the conservation of natural resources. This study delves into the impact of sustainability practices on the financial performance of Indian companies across diverse sectors. By scrutinizing environmental, social, and governance (ESG) practices and their correlation with key financial metrics such as Return on Equity (ROE), Return on Assets (ROA), and Return on Capital Employed (ROCE), the present paper seeks to shed light on the interplay between sustainability endeavours and financial performance within the Indian business milieu. The findings of the study offer actionable insights for businesses, policymakers, and investors navigating the complex terrain of sustainability.

Keywords: Sustainability, Profitability, Environmental Score, Social Score, Governance Score

DOI: 10.5281/zenodo.14987511

ESSBC JOURNAL OF BUSINESS STUDIES
ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

1. Introduction

Elkington (1999) introduced the concept of "The Triple Bottom Line" (TBL) approach, which expands the responsibility of creating value for all stakeholders. The classical approach in this regard limits the responsibility to the economic value addition of shareholders only (Friedman, 2007). It focuses on the commercial activities of a company, such as liquidity, solvency, profitability, earnings per share, etc. (Pertrescu, 2008). However, these measures are not sufficient to gauge a company's social contributions (Valiente, Ayerbe, & Figueras, 2012). A business should always consider society at large, as it presents the company with an opportunity to do business (Drucker, 1984). That's why the management of a business house should consider three leading indicators of sustainability, namely, environmental, social, and governance (ESG) (Tanjung, 2021). Nowadays, ESG is considered as a set of dynamic capabilities that ensure the alignment of economic performance, social service, and environmental nurturing in the same direction, resulting in overall sustainable growth for both mankind and the business house in particular (Taliento, Favino & Netti, 2019). Annual Reports of a company are often enclosed with an ESG report, which contains details of E (Environment), S (Social), and G (Governance) activities performed at different levels (Humphrey, Lee, & Shen, 2012). According to the report of the Global Reporting Initiative in 2018, about thirteen thousand companies across the globe issued more than 50,000 ESG reports voluntarily (Ahmad, Yaqub & Lee, 2024). Financial institutions and rating agencies are generating ESG scores from the ESG activities of a business house, as sustainable finance has become a major aim of asset managers who deal with managing ESG risks (D'Amato, D'Ecclesia & Levantesi, 2022). For emerging economies like India, maintaining sustainability is crucial, but the profitability aspect is not negligible (Chari & David, 2012). Although the international community and policymakers are eager to make sustainable investments, individual investors need a financial return against their hard-earned money (Renneboog, Ter Horst, & Zhang, 2008). Studying various research papers and articles, it is found that in the Indian context, studies related to the relationship between the measures of sustainability and profitability were very limited. Furthermore, these studies were not conclusive. In the present study, an attempt was made to ascertain the linkage between sustainability practices and the profitability performance of selected Indian companies.

2. Review of related literature

Numerous research studies conducted globally in recent years have sought to explore the relationship between ESG (Environmental, Social, and Governance) scores and financial performance indicators. Friede et al. (2015) conducted a comprehensive review of over 2000

ESSBC JOURNAL OF BUSINESS STUDIES
ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

research papers, revealing that approximately 90 percent of the studies supported a positive correlation between ESG scores and firm financial performance. Similarly, a meta-analysis by Alshehhi et al. (2018) involving 132 research papers found that about 80 percent of the authors pointed to a positive relationship between ESG scores and profitability. Furthermore, studies such as Lee and Jung (2016) have demonstrated a positive relationship between Corporate Social Responsibility (CSR) and financial performance in firms within the Korean manufacturing industry, with this relationship influenced by levels of product differentiation. Zhao et al. (2018) conducted research on listed power generation companies in China, uncovering a positive correlation between ESG performance and financial performance. Additionally, findings by Mahmut, Guzhan, and Ergun highlighted a positive and highly significant relationship between firm value and profitability. Supporting the theory that Corporate Social Performance (CSP) is positively associated with past and future financial performance, Waddock and Graves (1997) emphasized the importance of resource availability and effective management in enhancing CSP. Moreover, studies involving selected companies from the S&P500 and Dow Jones indices have consistently revealed a positive relationship between ESG practices and financial performance (Cesarone, Martino & Carleo, 2022).

The literature review suggests several research gaps in understanding the relationship between sustainability practices and financial performance. Firstly, there is a need for studies specifically focusing on Indian companies to comprehend how sustainability influences financial outcomes within the Indian business landscape. Secondly, sector-specific analysis is lacking, particularly within Indian industries, highlighting the importance of examining sustainability impacts across different sectors. Thirdly, more longitudinal studies are required to investigate the long-term effects of sustainability initiatives on financial performance. Additionally, there is a need to delve into the complex interplay between sustainability practices, management strategies, and financial outcomes, and explore alternative metrics beyond ESG scores for assessing sustainability practices. Addressing these gaps could enhance our understanding of the link between sustainability and financial performance, especially in the Indian context.

3. Hypotheses

The following hypotheses provide the foundation for examining how sustainability performance influences the financial performance of selected Indian companies, covering different dimensions of environmental, social, and governance practices:

H1a: Environmental score does not have significant relationship with ROA of the companies.

ESSBC JOURNAL OF BUSINESS STUDIES
ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

H1b: Environmental score does not have significant relationship with ROE of the companies.

H1c: Environmental score does not have significant relationship with ROCE of the companies.

H2a: Social score does not have significant relationship with ROA of the companies.

H2b: Social score does not have significant relationship with ROE of the companies.

H2c: Social score does not have significant relationship with ROCE of the companies.

H3a: Governance score does not have significant relationship with ROA of the companies.

H3b: Governance score does not have significant relationship with ROE of the companies.

H3c: Governance score does not have significant relationship with ROCE of the companies.

H4a: ESG score does not have significant relationship with ROA of the companies.

H4b: ESG score does not have significant relationship with ROE of the companies.

H4c: ESG score does not have significant relationship with ROCE of the companies.

4. Research Methodology

A. Sample Selection and Data Collection

The study selected the top ten companies in terms of market capitalization from 18 different industries in India. Data on ESG scores were obtained from CRISIL, while financial data for the financial year 2022-23 were collected from Screener.com.

B. Variables used

In this paper, Return on Assets (ROA), Return on Equity (ROE), and Return on Capital Employed (ROCE) were utilised as measures of profitability (Wang & Bansal, 2012; Quazi & Richardson, 2012; Panwar et al., 2017; Afza, Ehsan, & Nazir, 2015). These metrics serve as dependent variables, indicating the profitability performance of the selected Indian companies. The present study also intended to investigate how a company's sustainability performance would affect its financial performance. For this purpose, three aspects, namely Environmental (E), Social (S), and Governance (G) scores of 2022-23 were examined. These scores were sourced from CRISIL. The overall ESG score combined all three, while these three were also examined separately to assess their individual impacts.

ESSBC JOURNAL OF BUSINESS STUDIES
ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

C. Test of normality of the data

In this study, data from 18 industries were analyzed, including Cement, Chemical, FMCG, IT, Oil and Gas, Pharmaceuticals, Power, Auto Ancillary, Bank, Building Materials, Heavy Engineering, Logistics, Metals, NBFCs, Real Estate, Textile, Consumer Retail, and Health Care.

For each industry, the top 10 companies in terms of market capitalization were selected, and the data were obtained from screener.in. The primary objective of the study was to examine the relationship between sustainability measures and profitability measures in Indian companies. The Komolgorov-Smirnov Test of Normality was employed as the first step of analysis. The test results, as shown in Table 1, indicated that the environmental score data for the Auto Ancillary, Metals, NBFCs, Real Estate, Textile, Consumer Retails, and Health Care industries were not normally distributed. Similarly, the data for the Cement industry pertaining to Social Score were not normally distributed. Additionally, the data for the Auto Ancillary, Heavy Engineering, and Consumer Retail industries related to Governance Scores were not normally distributed. The ESG scores for the Auto Ancillary, NBFC, and Consumer Retail industries were also not normally distributed. Likewise, the data for the Real Estate, Textile, and Healthcare Industries related to ROE were not normally distributed, while the ROA data for the Logistics and NBFC industries were also not normally distributed.

5. Empirical Results and Discussion

In Table 2, Spearman's rank correlation coefficient was used for the purpose of measuring the strength and direction of the linear relationship between the selected sustainability scores and the selected profitability indicators as the data used in the study were not distributed normally. In order to examine whether these correlation coefficients were statistically significant or not, t test was applied. The results obtained from the correlation analysis as mentioned above were discussed below:

(i) **Environment score and ROE:** The correlation coefficient of -0.032 indicated a very weak negative correlation between the Environment score and ROE, suggesting that as one increased, the other tended to decrease slightly. However, this relationship was not statistically significant ($p = 0.666$).

(ii) **Environment score and ROA:** The correlation coefficient of -0.092 suggested a weak negative correlation between the Environment score and ROA, indicating that

ESSBC JOURNAL OF BUSINESS STUDIES
ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

as one increased, the other tended to decrease slightly. However, this relationship was not statistically significant ($p = 0.222$).

(iii) **Environment score and ROCE:** The correlation coefficient of -0.148 suggested a negative correlation between the Environment score and ROCE, indicating that as one increased, the other tended to decrease. The p-value of 0.048 indicated that this correlation was statistically significant at the 0.05 level.

(iv) **Social score and ROE:** With a correlation coefficient of 0.037 and a p-value of 0.612, there was a very weak positive correlation between the Social score and ROE. The Social score reflected a company's performance related to social responsibility and community impact. This correlation indicated a very slight tendency for the variables to move in the same direction, yet it was not statistically significant at the 0.05 level.

(v) **Social score and ROA:** The correlation coefficient between Social score and ROA was 0.015, indicating a very weak positive relationship between these two variables. This coefficient suggested a very slight tendency for the variables to move in the same direction. So, with a p-value of 0.843, the correlation was not statistically significant at the 0.05 level.

(vi) **Social score and ROCE:** The correlation coefficient between Social score and ROCE was -0.037, indicating a weak negative correlation between the two variables. This relationship suggested that an increase in the social score by one unit affected the ROCE to decrease by 0.037 units. However, with a p-value of 0.619, the correlation coefficient was not statistically significant at the 0.05 level.

(vii) **Governance score and ROE:** The correlation coefficient between Governance score and ROE was 0.268, suggesting a moderately positive correlation between the two variables. This relationship indicated a moderate tendency for the variables to move in the same direction. Furthermore, with a p-value of 0.000, the correlation was statistically significant at the 0.05 level.

(viii) **Governance score and ROA:** The correlation coefficient of 0.278 suggested a moderately positive correlation between the Governance score and ROA. This coefficient indicated a moderate tendency for the variables to move in the same direction. With a p-value of 0.000, the correlation was statistically significant at the 0.05 level.

ESSBC JOURNAL OF BUSINESS STUDIES
ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

(ix) **Governance score and ROCE:** The correlation coefficient of 0.285 suggested a moderately positive correlation between the Governance score and ROCE. This coefficient indicated a moderate tendency for the variables to move in the same direction. With a p-value of 0.000, the correlation was statistically significant at the 0.05 level.

(x) **ESG score and ROE:** The correlation coefficient of 0.058 reflected a very weak correlation between the ESG score" and ROE. This coefficient indicated a very low tendency for the variables to move in the same direction. With a p-value of 0.443, the correlation was not statistically significant at the 0.05 level.

(xi) **ESG score and ROA:** The correlation coefficient of 0.013 implied a very weak correlation between the variables, ESG Score and ROA. This coefficient reflected a very low tendency for the variables to move in the same direction. With a p-value of 0.859, the correlation was not statistically significant at the 0.05 level.

(xii) **ESG score and ROCE:** The correlation coefficient of -0.033 indicated a very weak negative correlation between the ESG Score and ROCE. This coefficient witnessed a very low tendency for the variables to move in the opposite direction. With a p-value of 0.661, the correlation was not statistically significant at the 0.05 level.

6. Concluding remarks

This study delved into how sustainability practices impacted the profitability of chosen Indian companies. The results showed varied correlation coefficients between ESG scores and financial metrics like ROE, ROA, and ROCE. While some correlation coefficients were significant, like the positive link between Governance score and ROE, others were not. The weak connection coefficients between ESG scores and financial metrics suggest that sustainability efforts might not always lead to immediate financial benefits. Nonetheless, it stresses the importance of considering ESG factors when evaluating a company's overall performance and calls for further research to understand how sustainability initiatives affect financial outcomes in the Indian context

ESSBC JOURNAL OF BUSINESS STUDIES
ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

Tables:

Table-1: Komolgorov-Smirnov Test of Normality

	Environment Score		Social Score		Governance Score		ESG Score		ROE		ROA		ROCE	
Industries	**Statistics**	**Significance**	**Statistics**	**Significance**	**Statistics**	**Significance**	**Statistics**	**Significance**	**Statistics**	**Significance**	**Statistics**	**Significance**	**Statistics**	**Significance**
Cement	0.243	0.098	0.276	0.030	0.175	.200*	0.179	.200*	0.249	0.079	0.174	.200*	0.177	.200*
Chemicals	0.223	0.173	0.215	.200*	0.198	.200*	0.212	.200*	0.158	.200*	0.208	.200*	0.151	.200*
FMCG	0.152	.200*	0.219	0.191	0.156	.200*	0.148	.200*	0.232	0.136	0.199	.200*	0.252	0.071
IT	0.189	.200*	0.215	.200*	0.275	0.031	0.255	0.063	0.187	.200*	0.157	.200*	0.168	.200*
Oil and Gas	0.212	.200*	0.193	.200*	0.170	.200*	0.226	0.159	0.194	.200*	0.165	.200*	0.154	.200*
Pharmaceuticals	0.179	.200*	0.230	0.142	0.216	.200*	0.100	.200*	0.181	.200*	0.155	.200*	0.255	0.064
Power	0.144	.200*	0.274	0.032	0.197	.200*	0.178	.200*	0.261	0.053	0.196	.200*	0.206	.200*
Auto Ancillary	0.306	0.009	0.401	0.000	0.316	0.006	0.328	0.003	0.169	.200*	0.151	.200*	0.198	.200*
Bank	0.209	.200*	0.136	.200*	0.145	.200*	0.224	0.166	0.237	0.117	0.219	0.192	0.239	0.109
Building Materials	0.258	0.058	0.245	0.089	0.150	.200*	0.247	0.084	0.225	0.164	0.127	.200*	0.164	.200*
Heavy Engineering	0.240	0.107	0.248	0.082	0.290	0.017	0.139	.200*	0.150	.200*	0.174	.200*	0.174	.200*
Logistics	0.186	.200*	0.250	0.077	0.165	.200*	0.219	0.189	0.238	0.114	0.330	0.003	0.242	0.101
Metals-Ferros	0.276	0.030	0.120	.200*	0.114	.200*	0.211	.200*	0.175	.200*	0.257	0.060	0.212	.200*
NBFC	0.321	0.004	0.285	0.020	0.197	.200*	0.307	0.008	0.180	.200*	0.323	0.004	0.256	0.063
Real Estate	0.264	0.046	0.206	.200*	0.206	.200*	0.197	.200*	0.383	0.000	0.236	0.122	0.234	0.128
Textile	0.377	0.001	0.246	0.123	0.155	.200*	0.241	0.141	0.335	0.004	0.158	.200*	0.303	0.017
Consumer Retail	0.320	0.004	0.300	0.011	0.268	0.040	0.276	0.030	0.142	.200*	0.109	.200*	0.133	.200*
Health Care	0.292	0.016	0.274	0.033	0.171	.200*	0.226	0.159	0.272	0.034	0.117	.200*	0.193	.200*

ESSBC JOURNAL OF BUSINESS STUDIES
ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

Table 2: Correlation Coefficients:

		Environment_Score	Social_Score	Governance_score	ESG_Score	ROE	ROA	ROCE
Environment_Score	Correlation Coefficient	1.000	.744**	.357**	.923**	-0.032	-0.092	-.148*
	Sig. (2-tailed)		0.000	0.000	0.000	0.666	0.222	0.048
	N	180	180	180	180	180	180	180
Social_Score	Correlation Coefficient	.744**	1.000	.305**	.850**	0.037	0.015	-0.037
	Sig. (2-tailed)	0.000		0.000	0.000	0.621	0.843	0.619
	N	180	180	180	180	180	180	180
Governance_score	Correlation Coefficient	.357**	.305**	1.000	.579**	.268**	.278**	.285**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000	0.000
	N	180	180	180	180	180	180	180
ESG_Score	Correlation Coefficient	.923**	.850**	.579**	1.000	0.058	0.013	-0.033
	Sig. (2-tailed)	0.000	0.000	0.000		0.443	0.859	0.661
	N	180	180	180	180	180	180	180
ROE	Correlation Coefficient	-0.032	0.037	.268**	0.058	1.000	.827**	.869**
	Sig. (2-tailed)	0.666	0.621	0.000	0.443		0.000	0.000
	N	179	179	179	179	180	179	179
ROA	Correlation Coefficient	-0.092	0.015	.278**	0.013	.827**	1.000	.932**
	Sig. (2-tailed)	0.222	0.843	0.000	0.859	0.000		0.000
	N	180	180	180	180	180	180	180
ROCE	Correlation Coefficient	-.148*	-0.037	.285**	-0.033	.869**	.932**	1.000
	Sig. (2-tailed)	0.048	0.619	0.000	0.661	0.000	0.000	
	N	180	180	180	180	180	180	180

References:

1. Afza, T., Ehsan, S., & Nazir, S. (2015). Whether companies need to be concerned about corporate social responsibility for their financial performance or not? A perspective of agency and stakeholder theories. *European Online Journal of Natural and Social Sciences*, *4*(4), 664.

2. Ahmad, H., Yaqub, M. & Lee, S.H. Environmental-, social-, and governance-related factors for business investment and sustainability: a scientometric review of global trends. *Environ Dev Sustain* 26, 2965–2987 (2024). https://doi.org/10.1007/s10668-023-02921-x

3. Alshehhi, A., Nobanee, H., & Khare, N. (2018). The impact of sustainability practices on corporate financial performance: Literature trends and future research potential. *Sustainability*, *10*(2), 494.

4. Aydoğmuş, M., GÜLAY, G., & ERGUN, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*.

5. Cesarone, F., Martino, M. L., & Carleo, A. (2022). Does ESG impact really enhance portfolio profitability?. *Sustainability*, *14*(4), 2050.

6. Chari, M. D., & David, P. (2012). Sustaining superior performance in an emerging economy: An empirical test in the Indian context. *Strategic Management Journal*, *33*(2), 217-229.

7. D'Amato, V., D'Ecclesia, R. & Levantesi, S. ESG score prediction through random forest algorithm. *Comput Manag Sci* 19, 347–373 (2022). https://doi.org/10.1007/s10287-021-00419-3

8. Drucker, P. F. (1984). Converting social problems into business opportunities: The new meaning of corporate social responsibility. *California Management Review (pre-1986)*, *26*(000002), 53.

9. 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.

10. Lee, S., & Jung, H. (2016). The effects of corporate social responsibility on profitability: The moderating roles of differentiation and outside investment. *Management Decision*, *54*(6), 1383-1406.

11. Panwar, R., Nybakk, E., Hansen, E., & Pinkse, J. (2017). Does the business case matter? The effect of a perceived business case on small firms' social engagement. *Journal of Business Ethics*, *144*, 597-608.

12. Quazi, A., & Richardson, A. (2012). Sources of variation in linking corporate social responsibility and financial performance. *Social Responsibility Journal*, *8*(2), 242-256.

13. Renneboog, L., Ter Horst, J., & Zhang, C. (2008). Socially responsible investments: Institutional aspects, performance, and investor behavior. *Journal of banking & finance*, *32*(9), 1723-1742.

ISSN: 2583-8563 (Online)
Peer Reviewed: Volume: II, Issue: II, July: 2024
Online copy of the published article is available at https://egrassbcollege.ac.in/journal/
Publisher: Department of Commerce, Egra Sarada Shashi Bhusan College, West Bengal, India
Search your DOI @ https://dx.doi.org/

14. Taliento, M., Favino, C., & Netti, A. (2019). Impact of environmental, social, and governance information on economic performance: Evidence of a corporate 'sustainability advantage'from Europe. *Sustainability*, *11*(6), 1738.

15. Tanjung, M. (2021). Can we expect contribution from environmental, social, governance performance to sustainable development?. *Business Strategy & Development*, *4*(4), 386-398.

16. Umoren, A. O., Udo, E. J., & George, B. S. (2015). Environmental, social and governance disclosures: A call for integrated reporting in Nigeria. *Journal of Finance and Accounting*, *3*(6), 227-233.

17. Valiente, J. M. A., Ayerbe, C. G., & Figueras, M. S. (2012). Social responsibility practices and evaluation of corporate social performance. *Journal of Cleaner Production*, *35*, 25-38.

18. Waddock, S. A., & Graves, S. B. (1997). The corporate social performance–financial performance link. *Strategic management journal*, *18*(4), 303-319.

19. Wang, T., & Bansal, P. (2012). Social responsibility in new ventures: profiting from a long-term orientation. *Strategic management journal*, *33*(10), 1135-1153.