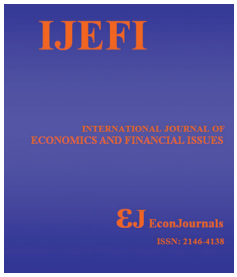

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Sectoral Performance of ESG Enabled Stocks during COVID-19 Pandemic in the Indian Stock Market

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ABSTRACT

Over past one decade, there is significant rise in Environment, Social and Governance (ESG) enabled investment practices across the globe and Indian economy is no exception to that. The ESG-enabled investment options provide better investment avenues for investment for retail and institutional investors by ensuring the long-term sustainability of the business. The present study tries to assess whether there is any impact of ESG scores on performance of stocks at the time of COVID-19 pandemic period. The study compares the performance of stocks with high ESG score vis-à-vis stocks with low ESG scores during COVID-19 period for different sectors of Indian stock market. The study considers the data of 312 sample firms listed on BSE 500 index. The event study methodology is used to assess the impact of COVID-19 on Indian stocks. The stocks were further divided into three categories high score (top 30% of firms), medium (middle 40% of firms) and low (bottom 30% of the firms). The results of the study suggest that the investors were more confident about the performance and revival of firms that carry high ESG scores than firms with low ESG scores. The investors are confident about the long-term prospects and sustainability of the firms, and they tend to hold their investment in the firms with high ESG scores.

Keyword: ESG Scores, COVID-19, Indian Stock Market, Event Study, Sectoral Performance
JEL Classifications: G01, G10, G14, G40

1. INTRODUCTION

In recent years, investors have started focusing on the overall long-term sustainable performance of the business before making their investment decisions (Umar et al., 2020). Due to changing environmental and social conditions across the globe, investors are always concerned about whether their investment is going to be sustainable in future or whether they are going to witness some losses due to growing environmental and social concerns followed by the measures taken to curb the situation (Rousseau and Deschacht, 2020). Apart from environmental and social problems, investors are also paying due attention to governance-related issues, which are essential to ensure that investors' confidence is intact in the overall workings of the firms in which they are investing or planning to invest. Due to these ongoing concerns of investors, businesses have started reporting the ESG scores of firms, highlighting the business's overall sustainability after considering the three essential criteria: environmental, social, and governance (Ewens and Townsend, 2020; Sugiarto et al., 2023). The ESG scores provide vital information in terms of to what extent the firms are following the good practices related to the three cornerstones: Environment, social, and governance. According to a recent report published by Deloitte (2020), there is a significant rise in the overall ESG-mandated investment funds globally. By 2025, it is expected to be almost 3 times non-ESG funds. A growing stream of literature suggests that investors are becoming more aware of ESG-enabled investment options and are willing to invest in these funds to ensure the long-term

sustainability of the business (Henisz et al., 2019; Verma and Mohnot, 2023).

The world has witnessed one of the rarest black swan events in the past century when the COVID-19 pandemic hit it. Due to this, various restrictions were imposed across different economies to stop the spread of coronavirus and save the making from the pandemic. The Indian government also imposed various such restrictions when the first lockdown was announced on March 24, 2020. The lockdown had a significant impact on Indian businesses as they were not allowed to continue with their routine operations, impacting their top and bottom lines significantly. This led to the rising concerns of investors investing in these firms, and as a result, the Indian stock market witnessed a significant decline in the overall performance of the stock market during the post-lockdown period. Due to these uncertainties, the investors were not sure about the short-term and long-term performance of firms and as a result of same the market witnessed more supply of the stocks and led to a decline of close to 40% in the first few weeks of trading during the lockdown period.

Considering the above discussion, the present study tries to address the following research questions: Was the behavior of investors towards those stocks that have high ESG scores vis-à-vis low ESG the same during the COVID-19 pandemic? (RQ1): Was there any significant difference in the performance of those stocks that have high ESG scores compared to those with low ESG scores? (RQ2). The answer to these research questions provides significant value in addition to the existing body of literature as it suggests whether the investor behavior towards ESG-enabled stocks remains the same during the crisis period and whether it is there under normal market conditions. The study also adds value to the existing literature by suggesting how ESG-enabled stocks perform during the crisis period as compared to normal market conditions. The study is structured in the following sections: section 2 discusses the review of related literature, section 3 discusses the research methodology, section 4 discusses the results and findings, and the conclusion is presented in section 5 of the study.

2. REVIEW OF RELATED LITERATURE

Academia and industry have been actively studying the interlinkages between the impact of ESG scores on stock performance over the last few years. The early literature in this field focused on the single component or dimension of the ESG (Ponnu, 2008; Kim et al., 2013; Khandelwal et al., 2023). However, later, Galbreath (2013) argued that focusing on one aspect does not present a holistic scenario. However, a limited number of studies focus on the overall ESG score impacting the stock market. Therefore, this paper concentrated on the overall ESG dimensions affecting India's sectoral performance of share prices. In the recent years, the major consultancy firms have been working on the ESG score. The investors and other stakeholders further refer these scores to businesses across the globe to understand the company's risk and opportunity regarding sustainability and ethics (Bassen and Kovacs, 2008). They further highlighted that the ESG score includes information not presented in the company's financial statements, which is indispensable for the business's interested parties.

The evidence of the positive relationship between ESG and stock performance was suggested by Tarmuji et al. (2016). The study argued that environmental, social and governance factors significantly influence the financial performance of the firms in Malaysia and Singapore. Buallay (2019) recent empirical study on the association between ESG and the performance of the banking sector in the European region, which included 235 banks for 10 years (2007-2016), has a significant positive impact, further highlighting the banks should focus on improving their overall ESG score. Pasquini-Descomps and Sahut (2013) study suggested the minor influence of the ESG news-based score on the monthly stock returns in the UK, Swiss and USA stock markets from 2007 to 2011. Alareeni and Hamdan (2020) investigated the relationship between the overall ESG score and its sub-dimensions, i.e. Environmental, Social and Governance, with the stock market performance of US S&P 500-listed companies for the pre-COVID period from 2009 to 2018. It suggests strong interlinkages of the Environmental and social factors with the firms' share prices, whereas the Governance factor had a lesser impact on the stock market individually. The overall effect of the ESG score on the firm's stock prices also suggests a strong influence. Furthermore, ESG investments have demonstrated the potential for increasing returns with decreasing risks and improved portfolio performance during COVID-19 (Albuquerque et al., 2020; Trisnowati et al., 2022).

A study suggests conflicting evidence of a negative relationship between ESG and stock performance with reference to Friedman (2009), who opposed directing corporate resources to ESG practices. Han et al. (2016) proposed that the interlinkages between ESG scores and stock performance demonstrate different results. The relationship between the environmental dimension and financial performance shows a negative curve, whereas the governance dimension shows a positive curve. Furthermore, lastly, there is no significant influence of social dimension on the performance of Korean firms. Orlitzky (2013) also supports the evidence that there is no relationship between the ESG scores and the performance of the stocks.

The existing studies have shown that COVID-19 has caused more damage than any prior pandemic due to its rapid global spread. The COVID-19 pandemic resembles the 1918-1919 pandemic. About 40 million people died in that year-long pandemic that affected one-third of the world's population. Given the more significant population and improved communication, COVID-19 had the potential to harm society more than the earlier pandemic (Dhar et al., 2020). Investor behavior during crises, including natural disasters, pandemics, and geopolitical events, might affect capital market investor sentiments. It may affect currency exchange rates, bond yields, and stock prices (Brown and Cliff, 2004). News, attention, and pandemic nonlinear dynamics affect investment sentiment (Baker et al., 2020). Different studies are conducted across the globe to capture the impact of a pandemic on stock market performance using event study methods. Fama et al. (1969) examined how the Kennedy assassination affected the stock market in a famous event study. The assassination hurt stock prices the day it happened, but it had no long-term effects. Mei-Ping et al. (2018) examined the effect of SARS spread on the Asian financial market. The US stock market has fallen four

straight record-breaking falls, while several Chinese A-shares have hit historic lows. COVID-19-related stock market losses have made risk management harder (Guidolin et al., 2019).

In the Indian context, different studies have indicated that the market has reacted negatively to the COVID-19 pandemic (Kumar and Kumara, 2021; Varma et al., 2021; Basuony et al., 2021; Dharani et al., 2022; Sreenu and Pradhan, 2023; Olasiuk et al., 2023; Mohanty and Mishra, 2024). Kumar and Kumara (2021) have shown that Indian stocks, mainly from sectors such as tourism and entertainment, have witnessed a significant negative hit. Basuony et al. (2021) have tried to assess the impact of a pandemic on the volatility of the market and reported asymmetric volatility behavior in the Indian stock market. Similar evidence was reported by Sreenu and Pradhan (2023). Dharani et al. (2022) reported a negative correlation between the growth rate of COVID-19 and stock market performance. Mohanty and Mishra (2024) tried to investigate whether the Indian market was overreacting due to the pandemic and found that Indian stocks overreacted to the pandemic, but the same was corrected over the span of 8 days. Considering the above, it is evident that the studies have tried to assess the impact of the COVID-19 pandemic on the performance of the Indian stock market, while other sets of studies have tried to relate the same in the case of ESG score of firms but there is significant research gap emerges where the combined effect of ESG and COVID-19 is assessed on the performance of the stock market. The present study tries to fill the research gap by assessing the impact of ESG on investor behavior during the COVID-19 pandemic.

3. DATA AND METHODOLOGY

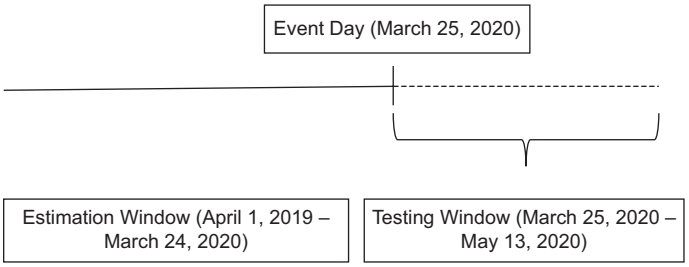
3.1. Data

The present study considers the firms listed in the BSE500 index as a sample of the study. To maintain data consistency, the firms with missing values were eliminated from the same. The final sample considers 434 firms listed in the BSE 500 index. BSE sensex is considered a benchmark of the Indian stock market. The daily closing price of sample firms and benchmark indices was collected from the CMIE Prowess database for the period of April 01, 2019 to May 13, 2020. The ESG disclosure data for the BSE 500 firms is obtained from the Bloomberg database.

3.2. Methodology

To assess the impact of ESG, COVID-19 on performance of stock returns, the study deploys the event study methodology proposed by Ball and Brown (1968). The researchers have widely employed this methodology to evaluate the influence of a particular event, including pandemics, financial crises, wars, macroeconomic announcements, and other important news on stock market performance. Researchers across the world have used the event study method to assess the impact of COVID-19 in different markets (He et al., 2020; Sharma and Kumar, 2023; Joshipura and Lamba, 2023).

The method is based on the idea that when an event happens if it has essential effects on the stocks and indices that make up an economy, the markets will respond in either a positive or negative way and create abnormal returns (Klein and Rosenfeld, 1987). The large abnormal results show that the event has had a big effect on the underlying stocks and indices. The event study method uses market models to figure out what the market expects in order to figure out what the abnormal returns are. The abnormal returns are the difference between what the market expected and what it got. The sample data for the study is split into two parts: an estimate window and a testing window. Due to the pandemic, the lockdown was announced in India on March 25, 2020, so this date is considered as the day of the event, while the period from April 01, 2019 to March 24, 2020, is considered as the estimation window while the period from March 25, 2022 to May 13, 2020, is considered as a testing window. The estimation period considers 211 days of observations, while the testing window includes 61 days of data. The testing window includes data from 30 days prior to the event day and 30 days after the event day.



The following equation is used to assess the expectations of Indian investors in 312 sample firms listed in the BSE 500 indices.

$$R_{i,t} = \alpha_{i,t} + \beta_{i,t} RMKT_{i,t}$$

Here, the $R_{i,t}$ represents the returns of the 312 firms considered as sample of study, while the $RMKT_{i,t}$ represents the returns of the BSE Sensex index, an benchmark index for Indian stock market. The abnormal returns for individual firms due to COVID-19 pandemic are estimated using the following equation.

$$AR_{i,t} = R_{i,t} - (\alpha_{i,t} + \beta_{i,t} RMKT_{i,t})$$

Here AR represents the abnormal returns estimated for each of the firm every day during the testing window. It is computed as the difference of actual returns and estimated returns computed using above equation. After calculation of these returns, these returns are added for different testing windows which are few days prior and post the event day. The following equation is used to compute the cumulative abnormal returns for all sample firms.

$$CAR_{i\ (t1,\ t2\ldots tn)} = \sum_{tn}^{t=t1} AR_{i,t}$$

The parameter CAR i (t1, t2., tn) represents the cumulative abnormal returns that have been estimated for the specified testing window. The study examines the following testing windows: (0, +1), (0, +3), (0, +5), (0, +10), (0, +20), (0, +30), (-1, 0), (3, 0), (5, 0), (10, 0), (20, 0), and (30, 0). The abnormal returns of the event day (0) and the subsequent day after the event date (+1) are aggregated for the testing window (0, +1). To obtain a comprehensive understanding of the stock market's long-term performance, the analysis additionally incorporates event windows of varying durations, including (+1, −1), (+3, −3), (+5, −5), (+10, −10), (+20, −20), and (+30, −30). To evaluate the importance

of the cumulative abnormal returns, the t-statistics are calculated utilising the subsequent formula:

$$t_{CAR} = \frac{CAR_t}{S_{CAR}}\sqrt{N}$$

Here, t_{CAR} is the t-statistics of cumulative abnormal returns, the cumulative abnormal returns for the t-time period, and the standard deviation of cumulative abnormal returns. N is the number of observations in the estimation window.

After computation of cumulative abnormal returns and t-test statistics for the testing windows for the sample firms, the study subset the sample into three categories using the ESG disclosure score of 2020. As per the ESG disclose score, the firms are divided into three categories including high score (top 30% of firms), medium (middle 40% of firms) and low (bottom 30% of the firms). The assess the impact of ESG and COVID 19 on performance of sample firms, the cumulative abnormal returns are summarised according to these high, medium and low ESG score categories. Further to assess the sector wise implications of ESG and COVID-19 on Indian firms, the computed data is further divided into banking, non-banking finance companies and other firms (including all the sectors except banking and NBFC).

4. RESULTS AND DISCUSSION

Table 1 summarised the analysis of all the firms considered in the sample of the study. The table shows the cumulative abnormal returns generated by different Indian sectors due to the announcement of various restrictions in the form of nationwide lockdown in India due to COVID-19 outbreak. From the table, it is evident that the banking sector has reacted negatively with CAR of −0.093% on next day (0,+1) event window of announcement of lockdown due to COVID-19. The similar negative performance was recorded in case of different event windows such as (−1,0), (−3,0) and (−5,0). For these event windows the performance of Indian banking sector was negative and significant with CAR of −0.127%, −0.136% and −0.115% respectively. For the longer event windows prior to announcement of the COVID-19 restrictions including (−10,0), (−20,0) and (−30,0), the Indian banking sector reacted negatively but the impact was not significant. On the contrary, the Indian NBFC sector didn't shown any reaction to the event on the next day of its announcement as it was there in case of banking sector. There was insignificant impact of COVID-19 on the CAR of NBFC sector during (0,+1) event window. On the other hand, NBFC sector also reported the similar reactions as the banking sector in case of event windows (−1,0), (−3,0) and (−5,0) where the sector reported negative and significant CAR of −0.073%,−0.091%, and −0.128% respectively. The sector event reacted for longer event windows including (−10,0) and (−20,0) where Indian NBFC sector reported negative and significant CAR of −0.15% and -0.177% respectively. In case of those sectors and industries which are not part of banking and NBFC sector, the negative and significant reaction of the market was observed during (−5,0) and (−10,0) event windows. For other windows, the stock market reaction was not significant. If we see the consolidated picture of the stock market movement for all sample firms, it is evident that there was negative and significant reaction in the market due to COVID-19 during 1 day, 3 day, 5 day and 10 days event windows.

The impact of COVID-19 on stock performance is further divided into three sub-groups considering the ESG scores of each firms among different sectors. The firms are divided into low (n = 93), medium (n = 127) and high (n = 92) ESG scores and the CAR for different firms falling in different sectors with different ESG scores is computed and reported in Tables 2-4. Table 2 shows the CAR of the firms with high ESG scores, Table 3 discusses the same with medium ESG scores while in case of low ESG scores, the results are reported in Table 4. From Table 2, it is evident that although the reaction of banking stocks with high ESG scores was negative and significant (CAR of −0.111%) during on (0,+1) event window, it was lower than the overall average (−0.093%) of all the firms falling in banking sector. Similar patterns are observed in case of different event windows (−1,0), (−3,0) and (−5,0) where the CAR of banking sector firms was lesser than the industry average in case of firms with high ESG scores. In case of NBFCs also, the CAR of firms with high ESG scores was −0.097%, −0.203%, and −0.210% which was lower than the overall NBFC industry average of −0.128%, −0.150% and −0.177% for event windows (−5,0), (−10,0) and (−20,0) respectively. In case of (−1,0) and (−3, 0) event windows showing the immediate reaction of the market, the impact of COVID-19 was negative and significant while in case of

Table 1: Cumulative Abnormal returns of different Indian sectors pre and post COVID of all sample firms

Sector/ Industry	(0,+1)	(0,+3)	(0,+5)	(0,+10)	(0,+20)	(0,+30)	(−1,0)	(−3,0)	(−5,0)	(−10,0)	(−20,0)	(−30,0)
Banking sector	−0.093***	−0.038	−0.044	−0.102	−0.104	−0.106	−0.127***	−0.136***	−0.115**	−0.026	−0.009	−0.043
	−2.991	−0.796	−0.921	−1.594	−1.248	−1.156	−4.046	−3.150	−2.216	−0.832	−0.338	−0.624
NBFC sector	−0.037	−0.001	0.011	−0.026	−0.017	−0.016	−0.073**	−0.091**	−0.128***	−0.150**	−0.177**	−0.188
	−0.818	0.150	0.353	−0.133	−0.116	−0.133	−2.373	−2.411	−2.645	−2.447	−2.126	−1.938
Other industries	−0.037	−0.007	0.019	0.050	0.054	0.061	−0.049	−0.063	−0.092**	−0.111**	−0.127	−0.143
	−1.357	−0.135	0.484	0.859	0.674	0.589	−1.812	−1.851	−2.231	−2.054	−1.692	−1.554
Overall average	−0.041	−0.009	0.013	0.031	0.035	0.040	−0.058**	−0.072**	−0.097**	−0.108**	−0.122	−0.139
	−1.439	−0.162	0.360	0.574	0.449	0.384	−2.041	−2.006	−2.267	−1.991	−1.623	−1.514

Full sample of 312 firms is considered for this analysis. The ***, ** and * show significance at the 99%, 95% and 90% significance levels, respectively. For each sector, first row shows the CAR followed by t-statistics in the immediately below cell

Table 2: Abnormal returns of different Indian sectors pre and post COVID of firms with High ESG score

Sector/ Industry	(0,+1)	(0,+3)	(0,+5)	(0,+10)	(0,+20)	(0,+30)	(−1,0)	(−3,0)	(−5,0)	(−10,0)	(−20,0)	(−30,0)
Banking	−0.111**	−0.051	−0.085	−0.130	−0.099	−0.091	−0.194***	−0.276***	−0.268***	0.028	0.028	0.042
	−2.239	0.148	−0.606	−0.880	−0.455	−0.575	−5.227	−5.892	−4.950	−1.709	−1.183	−0.896
NBFC sector	0.020	0.040	0.074**	0.112**	0.127	0.156	−0.024	−0.033	−0.097**	−0.203***	−0.210***	−0.243***
	1.027	1.408	1.999	2.124	1.645	1.733	−1.169	−0.992	−2.543	−3.824	−2.829	−2.716
Other industries	−0.055**	−0.037	−0.017	0.014	−0.007	0.022	−0.061**	−0.055	−0.061	−0.058	−0.063	−0.084
	−2.223	−0.987	−0.326	0.356	0.013	0.260	−2.479	−1.738	−1.585	−1.183	−0.960	−1.006
Overall average	−0.054**	−0.033	−0.016	0.012	−0.004	0.023	−0.067**	−0.066	−0.075	−0.061	−0.066	−0.086
	−2.047	−0.795	−0.215	0.385	0.076	0.295	−2.558	−1.923	−1.820	−1.356	−1.074	−1.093

Sample of 92 firms with high ESG score is considered for this analysis. The ***, ** and * show significance at the 99%, 95% and 90% significance levels, respectively. For each sector, first row shows the CAR followed by t-statistics in the immediately below cell

Table 3: Abnormal returns of different Indian sectors pre and post COVID of firms with medium ESG score

Sector/Industry	(0,+1)	(0,+3)	(0,+5)	(0,+10)	(0,+20)	(0,+30)	(−1,0)	(−3,0)	(−5,0)	(−10,0)	(−20,0)	(−30,0)
Banking	−0.033	0.000	0.025	0.053	0.067	0.067	−0.043	−0.064	−0.097**	−0.115**	−0.136	−0.152
	−1.166	0.086	0.644	0.882	0.807	0.614	−1.538	−1.892	−2.418	−2.207	−1.847	−1.708
NBFC Sector	−0.088***	−0.022	−0.022	−0.082	−0.101	−0.101	−0.133***	−0.135***	−0.121**	−0.122	−0.096	−0.138
	−3.422	−0.817	−0.830	−1.730	−1.512	−1.325	−4.608	−3.291	−2.224	−1.663	−0.757	−1.060
Other industries	−0.063	−0.033	−0.022	−0.061	−0.073	−0.082	−0.091***	−0.101**	−0.119	−0.130	−0.155	−0.179
	−1.646	−0.739	−0.279	−0.600	−0.677	−0.693	−2.476	−1.984	−1.927	−1.752	−1.630	−1.669
Overall Average	−0.048	−0.016	0.005	0.029	0.040	0.036	−0.060***	−0.084***	−0.104**	−0.115**	−0.136	−0.159
	−1.718	−0.364	0.173	0.473	0.453	0.273	−2.103	−2.373	−2.466	−2.110	−1.776	−1.722

Sample of 127 firms with medium ESG score is considered for this analysis. The ***, ** and * show significance at the 99%, 95% and 90% significance levels, respectively. For each sector, first row shows the CAR followed by t-statistics in the immediately below cell

Table 4: Abnormal returns of different Indian sectors pre and post COVID of firms low ESG score

Sector/ Industry	(0,+1)	(0,+3)	(0,+5)	(0,+10)	(0,+20)	(0,+30)	(−1,0)	(−3,0)	(−5,0)	(−10,0)	(−20,0)	(−30,0)
Banking Sector	−0.088***	−0.051	−0.049	−0.112	−0.110	−0.121	−0.083***	−0.058	−0.022	0.062	0.076	0.024
	−2.883	−1.294	−1.207	−1.824	−1.365	−1.270	−2.702	−1.456	−0.689	0.671	0.644	0.059
NBFC Sector	−0.031	0.019	0.021	−0.051	−0.017	−0.015	−0.075***	−0.109***	−0.154***	−0.151***	−0.190**	−0.171
	−0.663	0.676	0.350	−0.654	−0.266	−0.337	−2.841	−3.676	−3.629	−2.662	−2.420	−1.899
Other Industries	−0.022	0.016	0.050	0.086	0.105	0.095	−0.045	−0.072	−0.120***	−0.165***	−0.187**	−0.195
	−0.662	0.501	1.158	1.385	1.221	0.918	−1.455	−1.921	−2.687	−2.804	−2.289	−1.947
Overall Average	−0.029	0.011	0.038	0.050	0.068	0.059	−0.052	−0.075**	−0.115***	−0.142**	−0.163**	−0.173
	−0.853	0.364	0.843	0.812	0.774	0.535	−1.731	−2.091	−2.616	−2.457	−2.028	−1.767

Sample of 93 firms with low ESG score is considered for this analysis. The ***, ** and * show significance at the 99%, 95% and 90% significance levels, respectively. For each sector, first row shows the CAR followed by t-statistics in the immediately below cell

firms with high ESG scores the market has not reacted significantly in Indian NBFC sector. There was some negative movement of market is observed 1 day before and after the announcement of lockdown in case of other industries of Indian economy.

In case of firms (n = 127) with medium ESG scores, the moderate reaction is observed among different sectors of Indian economy. For Indian banking sector, the CAR of firms with medium ESG scores was higher (−0.097) than the firms with high ESG scores (−0.0268) and overall banking industry average (−0.115). In case of NBFC sector, the firms with medium ESG scores has shown the significant negative reaction on very next day of the lockdown restrictions while the similar behaviour was not observed in case of firms with high ESG scores in the NBFC sector. In case of overall average of CAR of firms with high and medium ESG scores, it is evident from Table 3 that during (−1,0), the reaction of stocks was lower in case of firms with high ESG scores (−0.067) as compare to medium firms (−0.060) and overall industry average (−0.058). This confirms that the stocks with high ESG scores reacted less to the negative news as compare to the stocks with medium ESG scores.

In case of firms (n = 93) with low ESG scores, the reaction of the stocks was slightly higher than the firms with high ESG scores. Immediately after the announcement of the COVID-19 restrictions, the overall reaction of the banking sector in terms of CAR was −0.093% while the same in case of with high ESG score was −0.111% and for low ESG score firms it was −0.088%. If we observe the reaction of NBFC sector after the announcement of the

COVID-19 restriction, it was again higher and negative in case of firms with low ESG scores (−0.031%) as compared to firms with high ESG scores (0.020%). Similar observations case be made in case of other industries where the impact was higher for firms with low ESG scores (−0.022%) and lower in case of firms with high ESG scores (−0.055%). This confirms that the firms with low ESG scores has reacted more towards the negative news of COVID-19 restrictions in the market than the firms with high ESG scores.

5. CONCLUSIONS

The present study tries to assess the impact of ESG scores on the performance of Indian stocks after the announcement of restrictions due to COVID-19. The study considers the sample of 327 Indian firms and divides these firms into three sub-groups, including firms with high ESG scores (n = 92), medium (n = 127) and low (n = 93). The impact of COVID-19 on Indian stocks is observed in the form of cumulative abnormal returns after the announcement of lockdown restrictions due to the spread of the pandemic in the Indian economy on 24th March 2020. The CAR is computed for the total sample, subsamples of firms with high, medium and low ESG scores, and summarised with three industry classifications, including the banking sector, NBFC sector and another sector (including all those sectors other than the banking and NBFC).

The results reported in previous sections clearly show that different sectors have reacted to the COVID-19 restrictions with different magnitudes and directions. The immediate reaction of all three sectors, banking, NBFC, and others, was negative when the data was computed considering the full sample of 327 firms. To see whether the ESG scores have any impact on the market behaviour, the CAR of the firms falling in different sectors with different scores is computed. The study found that the CAR of firms with high ESG scores is lower than the overall industry average. This confirms that the market reaction in the case of firms with high ESG scores was lower than other firms, and the investors were confident about the future prospects of these firms.

Similarly, when we observe the behaviour of firms with low ESG scores vis-à-vis high ESG scores, the results of the study clearly show that firms with low ESG scores have reacted more towards the COVID-19 restrictions as compared to the firms with high ESG scores. This confirms that investors were more confident about the performance and revival of firms that carry high ESG scores than firms with low ESG scores. This furthers firms that have high ESG scores; the investors are confident about the long-term prospects and sustainability of the firms, and they tend to hold their investment in these firms.

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