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## Corporate Environmental Performance and Financial Distress: during COVID-19 outbreak Insight from India firms

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### Abstract:

The relationship between company environmental performance and financial difficulty is investigated in this study. We find that environmental performance is adversely correlated with the market's perceived likelihood of experiencing financial trouble using a sample of Australian companies. Additionally, for businesses with a higher level of risk, the negative relationship between environmental performance and the likelihood of financial difficulty is more pronounced. The results offer crucial empirical evidence about the effects of environmental performance on risk management in businesses.

In recent years, there has been an enormous increase in the pressure on high-emitting economies to reduce their carbon emissions. However, a significant concern has been raised about how these initiatives may affect the firm's financial performance (FP). This study examines the connection between India companies' environmental performance (EP) and financial performance (FP), taking the COVID-19 outbreak into account. Data were gathered from Refinitiv DataStream and cover the years 2017 through 2020. The innovative dynamic panel bootstrap corrected fixed effects and panel corrected standard errors methods were used in addition to the fixed-effects regression to test the hypotheses. Two significant outcomes were obtained. In the beginning, there is only flimsy evidence that increasing EP raises enterprises' FP.

**Keywords:** India, Environmental performance, Financial Distress,

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### Introduction:

Climate change's effects on human welfare have elevated environmental issues to the top of political agendas. In recent decades, one of the most significant objectives of the international community has been to ensure sustainable global growth. Governments committed to this goal by signing the Glasgow Climate Pact in 2021 and the Paris Climate Agreement in 2015, respectively (UNFCCC, 2022). By keeping the rise in global temperature to under 2°C, these measures aimed to reduce the effects of global warming. To keep the temperature, increase to a minimum, greenhouse gas emissions (GHGs), particularly carbon emissions, must be reduced (UNFCCC, 2022). These changes have raised external pressure on nations with high carbon emissions (Alam et al., 2019).

This article aims to fill the gap in the EP literature and offer a more thorough understanding of this relationship given the ambiguous nature of the relationship between EP and FP (Brahmana and Kontesa, 2021), the disastrous effect of COVID-19 on the financials of firms, and the lack of studies examining the influence of the Pandemic on the relationship between EP and FP. To do this, we investigate the impact of EP, represented by the environment pillar score of enterprises, on FP, represented by return on assets, in the context of the

COVID-19 worldwide pandemic and unfavorable economic conditions. India businesses were chosen as our sample with this objective in mind for three primary reasons: first, China had the first reported cases of the COVID-19 virus in 2019.

### Review of literature:

According to Petitjean (2019), corporate social responsibility (CSR) is the idea that businesses have obligations to society that go beyond maximizing shareholder profits. Following Bowen's groundbreaking study from 1953, there has been much discussion on the function of CSR, its significance, and its impact on society. Some early studies (Andrews, 1973), while others (Levitt, 1958), claimed that businesses should exclusively concentrate on maximizing their own gains. The correlation between CSR and FP has been the subject of research because it is businesses' primary objective to maximize profit. The literature has conflicting viewpoints on the impact of CSR on FP, theoretically.

When investigating the connection between CSR and FP empirically, the literature has yielded conflicting findings (Gillan et al., 2021). The majority of the literature (Brogi and Lagasio, 2019; Long et al., 2020; Okafor et al., 2021; Qureshi et al., 2021) has reported that CSR has a favorable impact on FP. Margolis et al. (2009) came to the conclusion

that CSR had a favorable impact on FP after thoroughly examining more than 250 scholarly papers. Similarly, Orlitzky et al. (2003) claimed that CSR initiatives are likely to be profitable for businesses after analyzing 52 publications. Similar to this, Friede et al. (2015) found that emerging nations see a stronger positive impact of CSR on FP than developed economies (65.4%), based on their extensive meta-analysis of more than 2000 empirical research.

#### **Data description:**

The impact of EP on FP during the COVID-19 pandemic period's economic crisis is examined in this article. Since the COVID-19 Pandemic originated in China, it is obvious that we should concentrate on india-based companies in order to prevent any lead-lag effects on our findings. Refinitiv's database was used to extract information for 329 india companies on an annual basis between 2017 and 2020. Because it relies on a third-party rating and avoids bias disclosure issues, the environmental pillar score of the Environmental, Social, and Governance (ESG) Refinitiv Eikon database is chosen as a measure of EP (Han et al., 2016). Additionally, it goes beyond carbon emissions of firms to include both environmental and social factors.

#### **Model and methodology:**

We use fixed-effects linear regression on panel data to assess the aforementioned study's hypotheses. By eliminating information about fixed effects from being linked with the model's variables, this methodology assures consistent estimators. The fixed-effects linear regression model is considered to be the most appropriate because the sample under study comprises of india companies with comparable characteristics.

#### **Results:**

The includes descriptive statistics and correlation coefficients to assess the properties of the variables included in our empirical models. Indicating uncertainty in EP spending, the minimum value of environmental performance increased during COVID years while its variability grew from 0.873 to 1.903. The average for ROC is 0.09, while the average for ROA is 0.042. According to Table 1, the firm size has the highest correlation with the dependent variable ROA, while leverage has the highest correlation with ROC. The correlation coefficients between VACR and UN, COVEP and UN, and COVEP and INF are strong, with values of -0.98, 0.82, and 0.82, respectively, despite the fact that the bulk of correlation coefficients are low. In order to avoid any multicollinearity issues, VACR etc.

#### **Discussion:**

The overwhelming majority of research in the body of literature demonstrates that a firm's EP and FP have a strong link. What's intriguing is that

there is disagreement over whether this effect is good or bad. Both actual findings and theoretical justifications show this dichotomy. The effect of an investment in EP on FP is determined by the relationship between benefit and cost. According to studies that suggest a correlation between these two factors, EP benefits businesses in terms of production and reputation, which can provide them a competitive advantage. The other group, however, based its claims on the neoclassical economic framework and contends that businesses should concentrate only.

#### **Conclusion:**

By taking into account the COVID-19 Pandemic's impact, this study experimentally investigates the relationship between EP and FP, which has been the subject of ongoing debate for the previous three decades. The argument that raising EP can be financially profitable has mostly been tested in normal market conditions, despite mounting evidence to the contrary. Therefore, an essential question for stakeholders is whether going green pays off financially during a crisis. We examined 329 companies from the india market for the years 2017 through 2020 to answer the aforementioned issue. During the COVID-19 period, EP was represented by the environmental pillar score of the ESG and by the interaction variable COVEP. FP was assessed using two key metrics: return on assets (ROA) and return on equity (ROE).

The outcomes of our primary models showed that increasing EP investment could encourage india enterprises' FP. A high, robust connection between EP and FP amid financial upheaval is also revealed by the results. All ten of the models that were analyzed during the study show that higher EP could raise FP during hard times economically. These results imply that businesses should continue to fund environmentally friendly initiatives to raise EP. This will improve their interactions with their stakeholders and produce better FP in a challenging economic environment. Large corporations with numerous funding sources are more profitable than tiny businesses. Additionally, increased cash lowers the danger of bankruptcy and boosts business performance. FP is hampered by macroeconomic factors like unemployment and inflation. But improved institutional quality measures encourage.

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