Introduction

The concern and sensitivity towards environment, people and collective growth is the central theme of deliberations in various national and international forums. India has also taken a step forward and announced to achieve net-zero emissions by 2070. Under the Paris Agreement, India is prepared to achieve twin objectives of (i) reducing the emissions intensity by 33-35% of GDP below the 2005 level by 2030; and (ii) to increase the share of non-fossil energy in total power generation capacity to 40%.

According to World Economic Forum’s Global Risk Report 2021, Environmental, Social & Governance (ESG) risks accounts for four of the top five risks. OECD’s report on ‘ESG Investing: Practices, Progress and Challenges’ state that ESG Investing may improve existing Risk Management practices and may lead to returns that are better than traditional investments.

Banks never work in silos. Any impact on the economy at large, whether directly or indirectly exposed to ESG risks, will have a definite impact on banks’ performance. Embedding ESG into bank’s strategic plans will lead to long term sustainability of the respective bank, environment and society at large. This research paper explores the existing practices of Domestic Systemically Important Banks (D-SIBs) of India and attempts to map them with ESG factors. Also, this paper will identify certain ESG Parameters and study their impact on profitability of D-SIBs.

Objectives of the study

i. To map the existing practices of D-SIBs related to Environmental, Social & Governance (ESG) factors.

ii. To identify the ESG parameters and study their impact on profitability of D-SIBs.

Literature Review

(European Banking Authority, 2022) The Pillar 3 framework of European Banking Authority (EBA) on prudential disclosures on ESG risks will help institutions to provide meaningful and comparable information on how ESG-related risks and vulnerabilities, and in particular climate change, may exacerbate other risks in their balance sheet. Apart from Risk Disclosures & mitigating actions, the EBA in its draft on Implementing Technical Standards on prudential disclosures on ESG Risks had also provided templates to disclose information regarding Green Asset Ratio (GAR) & Banking Book Taxonomy Alignment Ratio (BTAR).

(Schuller, Brosens, & Kosonen, 2022) Schuller et al. suggests that availability of data will be the major challenge for banks when meeting the BTAR disclosure requirements, particularly considering the difficulties smaller companies will face in their attempts to provide banks with information on their taxonomy eligible activities and their taxonomy alignment.

(Ghosh, Nath, Narayanan, & Das, 2022) Indian banks are exposed to electricity, chemicals, and automobiles firms which are heavily dependent on fossil fuels. In the quest to achieve net-zero emissions, these sectors have to suitably modify their production processes which in turn may have spillover impact on banks.

(Lee & Eastman, 2021) MSCI concluded in its report on ‘2022 ESG Trends to Watch’ that by next decade...
most of the investors and companies may deliver as per their net-zero pledges. However, it will be a challenging task to achieve net zero emissions target. The report also discusses the role of Board Level Engagement on climate related risks as a factor under study for arriving at ESG Scores.

(CRISIL ESG Gauge, 2021) Acknowledging the relevance of ESG factors in decision making of policymakers, corporates and others CRISIL had published ESG Scores in 2021 on select companies. The report suggests that 70% of academic studies on ESG have positive relationship between ESG scores and financial returns like profitability, valuation & equity returns.

(Task Force on Climate Related Financial Disclosures, 2021) TCFD recommends organisations to effectively assess and disclose the financial impact of their climate related risks and opportunities. These include securing approval to publicly disclose the results, challenges around organizational alignment, attribution of impacts in financial accounts and longer climate horizons as compared to business horizons. The Task Force recommends to categorise climate related risks & opportunities as Short, Medium & long term.

(Torre, Leo, & Panetta, 2021) The relationship of ESG Performance and Corporate Financial Performance was studied to verify whether it is prudent for banks to adopt an ESG based approach. The findings of this study supports current approaches of banks towards focusing on ESG Risks than on ESG opportunities. This research also recommends that there is scope for regulatory impulses that may encourage bank managers to envision a long horizon with sustainable growth.

(Svartzman, 2020) Bank for International Settlements (BIS) has identified climate change as a source of monetary and financial instability via supply and demand side shocks. This report suggests the one of the solution to address climate change is ‘Carbon Taxation’. A new taxation policy requires consensus from Government & Central Banks, however, to ensure financial stability and increase stakeholders awareness, Central banks may take a lead and provide suitable guidance.

(Network for Greening the Financial System, 2021) NGFS recognises climate and environmental - related risks as a source of financial risks and suggests that central banks and supervisors should therefore ensure that the financial system is resilient to these risks. NGFS recommended the integration of climate-related risks into micro-prudential supervision and have given set of 5 recommendations for Banking and Insurance regulators. NGFS has also shared its concern as climate based financial risks are not fully reflected in asset valuations.

(Whelan, Atz, Holt, & Clark) Whelan et al. concluded that there is a positive relationship between ESG and financial performance for 58% of the “corporate” studies focused on operational metrics such as ROE, ROA, or stock price. Their study also suggests that ESG investing may provide downside protection, especially during an economic or social crisis. Further, they found that sustainability initiatives appear to be more promising in delivering better financial performance due to mediating factors such as improved risk management and more innovation.

Research Methodology

The Reserve Bank of India has identified following banks as Domestic Systemically Important Banks (D-SIBs):

i. State Bank of India
ii. ICICI Bank
iii. HDFC Bank

D-SIBs are the large banks which may be considered as the face of the Indian Banking System. Also, these banks are generally considered as pioneers for adopting to the changing needs of the industry and have started disclosing information regarding their prevalent ESG practices & GHG Emissions.

D-SIBs may set precedence for other banks to realign their practices to the demand of the situation. Also,
considering the fact that any impact on these D-SIBs has a potential to affect the overall financial stability of the nation, we have focused this study on the sample derived from above 3 D-SIBs.

This study is based on the secondary data available from 2018-21. To address first objective of the study and on the basis of the study of Annual reports of D-SIBs from 2018-21 and the Literature Review done in this respect, existing practices of D-SIBs were studied in relation to ESG factors. To address the second objective of the study, one parameter was mapped for each dimension of Environmental, Social & Governance (ESG) and its impact on the profitability of D-SIBs were studied.

The following factors were identified and accordingly mapped with ESG dimensions:

<table>
<thead>
<tr>
<th>ESG dimensions</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental (E)</td>
<td>GHG Emissions</td>
</tr>
<tr>
<td>Social (S)</td>
<td>Amount Spent on CSR</td>
</tr>
<tr>
<td>Governance (G)</td>
<td>No. of Board Meetings conducted</td>
</tr>
</tbody>
</table>

**Hypothesis**

i. There is no significant impact of GHG emissions on the profitability of banks.

ii. There is no significant impact of Amount Spent on Corporate Social Responsibility (CSR) on the profitability of banks.

iii. There is no significant impact of No. of Board Meetings on the profitability of banks.

**Mapping existing practices of D-SIBs with ESG factors**

Collevecchio Declaration on Financial Institutions advised financial Institutions to adopt its 6 principles which reflect civil society’s expectations of the role and responsibilities of the financial services sector in fostering sustainability.

ESG may be further broken into sub-components to better understand D-SIBs existing practices which are either already aligned to bank’s responsiveness towards ESG factors or have scope to be explored further in this regard.

**Sub-component 1: Environmental or E Factor**

This includes banks approach towards estimating & reducing the carbon emissions. The GHG Protocol Corporate Standard classified Green House Gas (GHG) emissions into **three scopes**. Scope 1 includes GHG emissions from direct sources which are in control or owned by organisations. Scope 2 includes indirect GHG emissions resulted from the consumption of purchased electricity. Scope 3 is an optional reporting category that includes all other indirect emissions. Scope 3 emissions are a consequence of the activities of the company, but occur from sources not owned or controlled by the company. With respect to D-SIBs in India, Scope 2 amounts to highest contributor of GHG emissions.

Apart from monitoring and reducing GHG emissions, D-SIBs have been actively involved in other environmental friendly practices like planting of trees, migrating to digital practices from paper based approaches, efficient waste management & investing in building energy efficient infrastructure.

Banks are also extending loans towards financing renewable energy. Reserve Bank of India has also encouraged banks to extend finance towards renewable energy. RBI has identified ‘Renewable Energy’ as one of the categories under its Priority Sector Lending mandate. Banks are also investing in Green bonds/funds.

**Sub-component 2: Social or S Factor**

India is one of the pioneer countries to make Corporate Social Responsibility (CSR) a legal mandate for specified companies. As per the guidelines laid by Ministry of Corporate Affairs, Government of India, the companies which fulfils any of the following conditions have to spend 2% of their average net profit for the past three years on Corporate Social Responsibility:

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1 Commitment to: Sustainability, ‘Do No Harm’, Responsibility, Accountability, Transparency & Sustainable markets and Governance.
Net-worth of Rs 5 Crores or more
Turnover of Rs. 1,000 Crores or above
Net-profit of Rs 5 Crores or more

CSR is a board driven strategy to ensure that organisations, being a part of the society are also contributing for social benefits. D-SIBs are currently under taking various CSR activities under their ambit like their initiatives to support Girl education, Health Care, Women Empowerment & Promotion of Sport activities. Still, to ensure active engagement of D-SIBs with its social environment, they may consider to widen the scope of CSR activities rather than restricting most of them as timely donations.

The scope of ethical code of conduct may also be enlarged to ensure D-SIBs are not only nurturing wise employees but also responsible members of society at large. Also, responsiveness towards present and prospective customers may be improved.

Sub-component 3: Governance or G Factor

Focus of board on organisational objectives in line with external sphere plays a crucial role in development of organisational policies which are beneficial for sustainable development. Many countries have adopted to Stewardship codes to address the concerns of market towards appropriate governance.

In Indian context, Insurance Regulatory & Development Authority of India and Pension Fund Regulatory and Development Authority have also issued guidelines on Stewardship codes. SEBI has mandated Stewardship code with ESG monitoring since 2020. These codes monitor institutional investors investment and their association with investee companies on governance related matters. The code emphasises on the fact that the investors should have an independent perspective while casting their votes and during shareholders’ meetings. Board should play an active role in foreseeing the risk and opportunities as well as accessing its impact on overall business performance.

Board should ensure a robust audit and compliance system is at place to ensure laid guidelines are followed in true spirit. Also, it will check any deviations and recommend for corrective measures to limit the impact of damages. As per the report of the Committee on Corporate Governance it was proposed that the board of directors shall meet at least once a year to specifically discuss ESG, strategy, budgets, risk management, board evaluation and succession planning.

Data Analysis & Interpretation

In order to test the hypothesis formulated under this study, the data was collected and tabulated from Annual Reports/Sustainability Reports/ESG Reports of D-SIBs about the selected parameters - GHG emissions, Amount Spent on CSR & No. of Board Meetings conducted from 2018-21. Mean Values were calculated on all the 3 parameters (Table 1), which were further subjected to t-test at 0.05 significance level.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>GHG Emissions (in tCO2e)</th>
<th>No of Board Meeting</th>
<th>Amount Spent on CSR (in Rs Crs)</th>
<th>NP (in Rs crs) after tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>536556.3</td>
<td>14</td>
<td>327</td>
<td>22573</td>
</tr>
<tr>
<td>2019-20</td>
<td>536535.3</td>
<td>11</td>
<td>232.2733</td>
<td>16203.38</td>
</tr>
<tr>
<td>2018-19</td>
<td>587761.7</td>
<td>14</td>
<td>184.1533</td>
<td>8434.49</td>
</tr>
</tbody>
</table>

Table 2 depicts the result of Test conducted to test the Hypothesis (i). The results of the test show that the value of p = 0.000532 which is less than 0.05 so the null hypothesis is rejected. This infers that there is a significant impact of GHG emissions on profitability of banks.

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1As per the Reserve Bank of India's guidelines, SBI requires to spend upto 1% of its previous year’s profits towards its CSR efforts as it was not set up under Companies Act.
2GHG Emissions exclude Scope 3.
Table 2: t-Test - Two-Sample Assuming Unequal Variances

<table>
<thead>
<tr>
<th></th>
<th>NP (in Rs. crs) after tax</th>
<th>GHG Emissions (in tCO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15736.98</td>
<td>553617.8</td>
</tr>
<tr>
<td>Variance</td>
<td>50138006</td>
<td>874353971</td>
</tr>
<tr>
<td>Observations</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>t Stat</td>
<td>-30.6404</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) one-tail</td>
<td>0.000532</td>
<td></td>
</tr>
<tr>
<td>t Critical one-tail</td>
<td>2.919986</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) two-tail</td>
<td>0.001063</td>
<td></td>
</tr>
<tr>
<td>t Critical two-tail</td>
<td>4.302653</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 depicts the result of Test conducted to test the Hypothesis (ii). The results of the test show that the value of $p = 0.030717$ which is less than 0.05 so the null hypothesis is rejected. This infers that there is a significant impact of number of board meetings conducted during a year on the profitability of banks.

Table 4: t-Test: Two-Sample Assuming Unequal Variances

<table>
<thead>
<tr>
<th></th>
<th>NP (in Rs. crs) after tax</th>
<th>Amount Spent on CSR (in Rs Crs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15736.98</td>
<td>247.73</td>
</tr>
<tr>
<td>Variance</td>
<td>50138006</td>
<td>5263.584</td>
</tr>
<tr>
<td>Observations</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>t Stat</td>
<td>3.788652</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) one-tail</td>
<td>0.03157</td>
<td></td>
</tr>
<tr>
<td>t Critical one-tail</td>
<td>2.919986</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) two-tail</td>
<td>0.063141</td>
<td></td>
</tr>
<tr>
<td>t Critical two-tail</td>
<td>4.302653</td>
<td></td>
</tr>
</tbody>
</table>

The complicated review procedures, lack of consistent methodologies and high cost of reporting are hurdles for corporates to integrate ESG criteria in their business models. On the basis of this study, a simplified ESG framework is proposed for banks (Figure 1). This model enlists the key factors that must be studied under each parameter of (E) Environmental, (S) Social & (G)overnance framework.
Figure 1: Proposed ESG Framework for banks

Conclusion

As we embark our journey to understand the complexity of risks in banking sector, it is pertinent to realise that adaptation to the changing environment plays a key role in minimising the overall impact of risk in the business. While adaptation may come in many forms, it is necessary to understand three important aspects - Why are the changes required? What are the changes required and the most important of all - How to access the impact of the change? This paper attempts to understand the existing practices of Domestic Systemically Important Banks (D-SIBs) in India in relation to the impact of ESG factors on profitability of D-SIBs. The present study finds that there is a significant impact of ESG parameters under study on the overall profitability of bank. This suggests that there is scope of integrating an ESG framework to overall productivity of banks. However, at the same time “Transition Risks” associated with migration from traditional practices to the ESG sensitive framework may not be overlooked.

The Environmental, Social & Governance (ESG) related risk is a prospective matter of concern for Indian banks, as being in a regulated framework most of the reporting done by banks are based on mandatory requirements, however, Domestic Systemically Important Banks in India have started disclosing information related to their preparedness for the challenges posed by ESG.
The International Financial Reporting Standards (IFRS) Foundation is establishing an International Sustainability Standards Board (ISSB) to develop a baseline global sustainability reporting standard, built from the Task Force on Climate-related Financial Disclosures (TCFD) framework and the work of an alliance of sustainability standard setters. However, there is a need for improving the level of disclosures for greater consistency and comparability.

Hopefully, with effect from 2022-23, when filing of Business Responsibility and Sustainability Report (BRSR) shall be mandatory for the top 1000 listed companies, more companies will come forward with disclosures on their practices aligned with ESG related factors which will enable investors and other stakeholders to make informed decisions.

References


CRISIL ESG Gauge. (2021). CRISIL ESG Compendium. CRISIL.


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