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Discovering the Sustainable Development: Role of Fin-Tech in Corporate Sustainability Disclosures and its Financial Impact and Implications

Dr Nidhi Sahore[1*], Dr Laxmi Pandey[2]

[1*]Associate Professor Finance, IMS Ghaziabad, Ghaziabad UP.
Email: nidhi.sahore@imsgzb.ac.in
[2]Associate Professor Finance, IMS Ghaziabad, Ghaziabad UP.
Email: laxmi.pandey@imsgzb.ac.in

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ABSTRACT

There has been a rapid development and integration of Financial Technology (Fin-tech) companies in the Indian Banking Sector in recent years. Nevertheless, every article, book, and speech on the future of fin-tech in sustainability has practically stressed the requirement for the transformation in fintech towards sustainable development in the past few years. Despite the subject's significance, the researchers noted that prior studies on the effect of fin-tech in corporate sustainability disclosures were limited. Hence, investigating the effect of fin-tech on corporate sustainability disclosures and its financial impact and implications is the aim of the study. Then, the opportunities and challenges of adopting fin-tech in sustainability are also analysed in this study. From the dataset of EPWRF India Time Series and Open Government Data (OGD), a total of 210 financial institutions has been considered. A hypothesis for this study is generated and tested by utilizing linear regression analysis. The research states that there is a statistically positive relationship between the fin-tech and Environmental, Social, and Governance (ESG) performance of corporate sustainability disclosures within the banking sector. But the board size is negative. Also, it has a positive and significant relationship with the board's level of independence and gender diversity.

Keywords: *FinTech, Corporate Disclosure,* Environmental, Social, and Governance (ESG), *Financial Institutions and Sustainability.*

INTRODUCTION

For the past two decades, technology has played a significant role in organizations. The term "Fin-Tech" has been derived by combining the two words finance and technology (Giglio, 2021). A valuable tool for enhancing financial activities' efficiency and quality is Fintech. Electronic cash, loans, peer-to-peer (P2P) lending, and online currency exchange are provided by FinTech, which is also more popular among entrepreneurs. Globally, FinTech has gained the attention of policymakers and investors (Sabda Maulana et al., 2022; Khiewngamdee & Yan, 2019). The role of fintech in modern financial sector cannot be negated rather it empowering financial organizations such as banks while on the other it allows sustainable development (Liu et al., 2021). In general, for a superior understanding of actual demand in local communities, the companies that give services focused on FinTech come under FinTech organizations (Varga, 2018; Stanescu, 2024).

FinTech keeps in touch with the end-users. The fintech industry in India grew quickly, from 2,100 companies in 2021 to 10,200 in 2024. The ecosystem consists of one decacorn, twenty-five unicorns, and eighty-seven soonicorns, with a $125 billion valuation and $20 billion in FY23 sales. Attracting 85% of total financing, payments, and lending take centre stage (Chadha, 2024; Kulkarni et al., 2025). The sector is being revitalized by AI, blockchain, and digital assets (Heather et al, 2025).61% of consumers trade online, while only 16% use branches, according to the World Retail Banking Report 2024, indicating a shift toward digital-first banking. As consumer expectations and behaviour change, technology is changing the customer experience by providing faster, more secure, and more individualized services. Examples of this include voice ID and conversational bots, which have a 53% adoption rate (Capgemini, 2024). The emerging themes in fintech, which will lead the country to the next era of growth as per the report (PwC, Assocham, 2024). Conventional financial organizations are attracted by FinTech organizations to get their knowledge. The collaboration with the FinTech organizations lets the partner improve the effectiveness and efficiency of their banking services. The expansion of FinTech is improved via digital technology's combination with the real economy. This offers substantial support in alleviating corporate financial challenges [Nicoletti, 2021; Wang et al., 2022]. By

evaluating, understanding, and communicating a company's ESG performance, corporate sustainability disclosures significantly shape organizational financial performance. Thus, applying Fin-tech enhances corporate practices (Sustainability Toolkit, 2024). Figure 1 visually depicts how FinTech is applied in sustainability efforts.

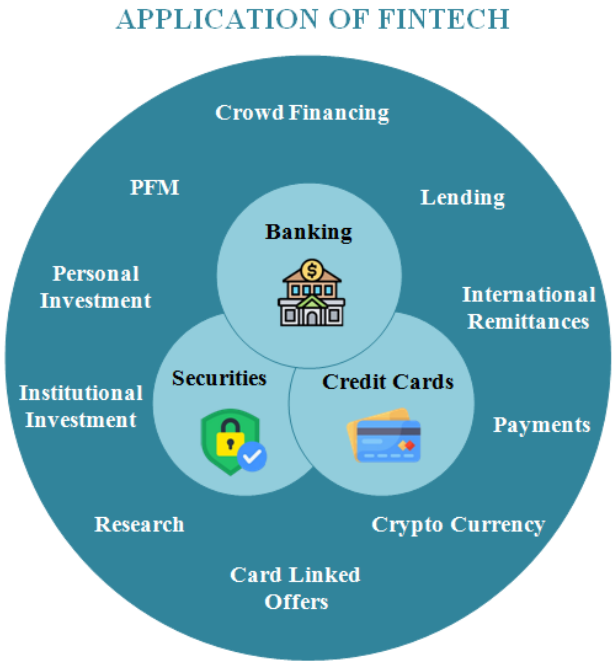

Figure 1: Application of Fin-Tech in Sustainability

1.1 Statement of the Problem

Since financial organizations concentrate more on their contributions to sustainable development, FinTech initially drives economic growth. Nevertheless, the integration of FinTech often lacks insufficient strong ethical standards in Corporate Social Responsibility (CSR) (Trotta et al., 2024). Fintech is redefining the traditional financial systems by integrating sustainability into an innovative technology driven environment (Taha & Taha, 2024). Prior studies on FinTech had placed lesser emphasis on CSR and economic performance. But few researchers analyzed ESG scores within the banking sector. In addition, there was limited research, which systematically addressed the challenges related to FinTech's adoption. For filling this gap, evaluating the impact of FinTech on corporate sustainability disclosure by considering environmental, social, and economic factors is the aim of the present study.

1.2 Research Objectives:

The objectives of the research are specific and measurable goals that outline the accomplishments of the researcher within a study. Therefore, the study is carried out grounded on two objectives:

i. To analyze the relationship betwixt fin-tech and ESG performance of corporate sustainability disclosures within the banking sector.
ii. To recognize the specific challenges and opportunities related to adopting FinTech for sustainability.

The following sections of the research paper are organized as: A review of the relevant literature is provided in the second section. The empirical analysis is outlined in the third section. The results and discussion are presented in the fourth section. Lastly, the concluding section summarizes the findings and recommends potential directions for future research.

REVIEW OF LITERATURE

Siddik et al., 2023 analyzed the impact of FinTech adoption on organizational sustainability performance by gathering data from 300 respondents in Bangladeshi manufacturing Small and Medium Enterprises (SMEs) via a structured questionnaire. By utilizing a blend of structural equation modelling and artificial neural network methods, the conceptual model was assessed. According to the results, the sustainability performance of SMEs was directly influenced by access to finance. Nevertheless, a robustness check for the Structural Equation Modelling (SEM) findings was not included in this study. Though measuring techniques are still uneven, the literature emphasises the fintech industry's expanding contribution to improving banks' ESG performance. Dicuonzo et al. (2024) demonstrate that while board size has a detrimental influence on ESG, fintech has a positive impact. Gaps include regional variety and a lack of standardised fintech indices, indicating that future studies should improve measurement and include larger bank contexts.

Li et al., 2024 analyzed the connection between firms' involvement in Fin-tech and their CSR practices. Data was gathered from companies listed on the Shanghai and Shenzhen Stock Exchanges, with T-tests utilized to analogize the CSR practices of firms with and without FinTech operations. As per the findings, firms with a

FinTech presence tended to depict superior CSR practices. But the study's only focus on companies from these two stock exchanges might restrict the results' applicability to other regions or industries. The influence of CSR on stability is positively moderated by FinTech, encouraging socially responsible practices, according to Salah Mahdi et al. (2025). According to Yuan (2025), FinTech can enhance both environmental sustainability and financial performance. There are gaps in sectoral diversity and regional generalisability, indicating the need for more study on worldwide applications and the convergence of CSR, FinTech, and ESG.

Liu et al., 2021 studied the relationship betwixt corporate social performance as well as banking performance utilizing data from Chinese banks between 2009 and 2018. According to regression analysis, FinTech obtained a significant effect on ROE. However, the impact on ROA was not significant. The study did not distinguish between diverse types of CSR.

Muhammad Rizwan Kamran et al., 2024 found CSR based sustainability aspects to be an important conduit between fintech and financial sustainability of banking sector. With the evolving regulations around its sustainability attempt of the banks minimize their financial risks. Here, the fintech can support the eco conscious policy adoption across industries (Khan et al., 2024). Social and environment value are superseded by financial value however it is not possible in today's times to achieve financial value without being an environmentally and socially responsible fintech company (Carè et al., 2023). Further the role of ESG principle integrated fintech initiatives is quintessential in garnering sustainable finance (Roy & Vasa, 2025).

Harisa Putri et al., 2019 evaluated the companies' profitability before and after the introduction of FinTech products. Here, 17 FinTech products from 16 Indonesian firms were included in the study. By using descriptive statistics and T-tests, the gathered data was investigated. A significant impact on "Return on Assets (ROA)" was displayed by the outcomes when "Return on Equity (ROE)" remained largely unchanged. However, owing to the small sample size, the study's conclusions were limited. Magableh et al. (2025) draw attention to the need for more study on worldwide applications, sectoral impacts, and emerging FinTech tools for ESG and sustainability in banking, citing regulatory loopholes and rapid technological advancements.

Toumi et al., 2023 analysed the role of environmental disclosures on Fin-tech organizations' market performance during the pandemic. The sample was collected from 48 Fin-tech and 140 non-Fintech firms throughout 2011 to 2022. By utilizing a correlation technique, the relationship between "Fin-tech and environment" and "Fin-tech and market performance" was investigated. The study depicted that when compared to non-Fintech firms, the Fin-tech firms attained superior environmental performance during the pandemic period. The study only concentrated on environmental performance; but social and governance aspects were not considered.

Deng et al., 2019 analyzed the relationship between FinTech and sustainable development utilizing data from P2P platforms in 31 provinces in China. To investigate this relationship, a Fixed Effect (FE) model was utilized, thereby revealing a U-shaped link betwixt Fin-tech and sustainable development. Nevertheless, the study was confined to P2P data from China, thus limiting the broader applicability of the findings to other contexts.

Zhu et al., 2024 inspected the Fin-tech's effect on the ESG performance of corporates. The data was gathered from the A-share listed corporates in China from 2011 to 2022. The regression method was used in the study to investigate the data. As per the study's findings, the corporation's ESG performance was enhanced by Fin-tech development. The research was only applied to A-share listed companies and not to other shared listed companies or industries.

EMPIRICAL ANALYSIS

3.1. Sample collection

The sample collection process involves choosing a subset of items from the overall population for investigation, thus allowing conclusions to be drawn from the data. Primarily, a population of 1,885 listed banks in 2023 is considered in the study, utilizing data from the EPWRF (Economic and Political Weekly Research Foundation) India Time Series and OGD (Open Government Data) dataset. A total of two hundred and ten financial institutions are selected for the final sample, whereas others are excluded owing to missing ESG data, unavailable annual reports on their websites, or incomplete information.

3.2. Variables Used

- **Independent Variable:** In this study, the primary independent variable is the FinTech index, which is developed centered on the companies' annual reports.
- **Dependent Variable:** The ESG performance of the enterprise is the Dependent Variable (DV). With an increasing concentration on responsible investment, diverse ESG rating systems are utilized to measure a firm's ESG performance, every single one with particular assessment criteria, reference indicators, and coverage scope.
- **Control Variables:** Centered on prior research, numerous internal as well as external factors that influence a firm's ESG performance are controlled. These encompass firm size (SIZE), leverage (LEV), return on total assets (ROA), and AGE.
- **Corporate Governance Variables:** Three corporate governance variables, namely BOARD SIZE (No. of directors), BOARD INDEP (independent board members), and WOMEN (women on the board) are considered for investigating the relationship betwixt

FinTech as well as corporate sustainability via ESG scores.

Table 1: Variables Description

Type	Variable	Description
Independent Variable	FinTech Index	Developed from companies' annual reports to quantify the level of FinTech adoption.
Dependent Variable	ESG Performance	ESG rating systems reflecting environmental, social, and governance practices.
Control Variables	SIZE	Organisation's size.
	LEV	Leverage
	ROA	Return on Assets.
	AGE	Age of the Organization
Corporate Governance Variables	BOARD SIZE	Number of directors on the board.
	BOARD INDEP	Percentage of independent board members.
	WOMEN	Percentage of women on the board.

(Source: Author's Compilation)

3.3. Hypothesis Development

- **H1:** The banks' ESG performance is positively affected by the expansion of FinTech.
- **H2:** An increase in board size is negatively correlated with the banks' ESG performance.
- **H3:** The banks' ESG performance is improved by a greater proportion of independent board members.
- **H4:** The presence of gender diversity on the board has a positive influence on the banks' ESG performance.

3.4. Empirical Model

This study constructed the subsequent Ordinary Least Squares (OLS) regression model for testing the fintech's impact on corporate ESG performance.

$$\mathrm{ESG}_i = \beta_0 + \beta_1 \mathrm{FINTECH}_i + \beta_2 \mathrm{BOARDSIZE}_i + \beta_3 \mathrm{BOARDINDEP}_i + \beta_4 \mathrm{WOMEN}_i + \beta_5 \mathrm{SIZE}_i + \beta_6 \mathrm{LEV}_i + \beta_7 \mathrm{ROA}_i + \beta_8 \mathrm{AGE}_i + \varepsilon_i$$

Here:

- Individual firms are signified as i.
- The firm's level of Fin-tech adoption is reflected by the independent variable (i.e., the FinTech development index).
- The FinTech index's coefficient measures its influence on the banks' ESG performance.

A significantly positive coefficient is anticipated in the study. This represents that FinTech's advancement positively contributes to improving corporate sustainability disclosure and enhancing ESG performance.

RESULT AND DISCUSSION

Here, the study's key findings, comprising the critical variables' descriptive statistics, Pearson's coefficient correlations, and linear regression analysis, are presented. The outcomes of the effect of fin-tech and corporate disclosure of ESG on sustainability are also discussed.

4.1. Descriptive Statistics

Descriptive statistics is used for summarizing and highlighting the key features of a dataset, encompassing variability, central tendency, along with distribution measures. An overall view of the data is offered by these techniques, thus allowing for the identification of trends and relationships within the dataset.

Table 2: Summary Statistics for Identified Variables

Variable	M	SD	Min	Max	N
ESG	50.03	20.75	15.71	98.26	210
FINTECH	49.88	53.90	3	303	210
BOARD SIZE	22.23	4.92	11	32	210
BOARD INDEP	91.35	23.20	20	113	210
WOMEN	36.21	19.47	7	75.8	210
SIZE	90,482	411,444	999	3,202,789	210
LEV	0.12	0.15	3	4	210
ROA	2.59	0.93	-0.91	10.24	210
AGE	40.99	28.62	4	167	210

Table 2 shows, the mean ESG performance for corporations was 50.03. The FinTech variable had a mean of 49.88, ranging from a minimum of 3 to a maximum of 303, thus representing significant variability in the sample (Dicuonzo et al., 2024). The other key variables' descriptive statistics aligned closely with the findings of the prevailing literature.

4.2. Correlation Analysis

By utilizing Pearson correlation analysis (r), the relationships between the construct variables were analyzed for understanding the statistical associations among the variables. A high correlation value between two variables denotes a strong relationship, whereas a low correlation value recommends a weak one. To simultaneously evaluate the relationships between variables, multiple correlation analysis (Pearson correlation) was conducted in this study. Table 3 presents the results of these correlations.

Table 3: Correlation Matrix of Identified Variables

Variable	1	2	3	4	5	6	7	8	9
1	1								
2	0.603**	1							
3	0.123	0.120	1						
4	-0.181*	-0.251**	0.022	1					
5	0.707**	0.311**	-0.118	-0.233**	1				
6	0.779**	0.610**	0.454**	-0.324**	0.509**	1			
7	0.501**	0.290**	-0.104	-0.407**	0.505**	0.560**	1		
8	-0.101	-0.029	-0.083	0.022	-0.138	-0.181*	-0.028	1	
9	0.303**	0.240**	0.306**	-0.095	0.201**	0.402**	0.269**	-0.144	1

*** significant at the 1% level; ** significant at 5% level; * significant at 10% level.

A positive relationship between the independent variable and DV is depicted by the analysis in Table 3. The Variance Inflation Factor (VIF) was computed to check for multicollinearity (Dicuonzo et al., 2024). A VIF value greater than 10 represents a high degree of correlation among variables. However, all VIF values were below three in this study, thereby recommending no multicollinearity problems. ESG was positively related to BOARD SIZE (0.123), WOMEN (0.707**), SIZE (0.779**), LEV (0.501**), and AGE (0.303**), whereas it was negatively associated with BOARD INDEP (-0.181*) and ROA (-0.101). Likewise, FIN-TECH displayed positive associations with BOARD SIZE (0.120), WOMEN (0.311**), SIZE (0.610**), LEV (0.290**), and AGE (0.240**). Nevertheless, it was negatively associated with BOARD INDEP (-0.251**) and ROA (-0.029).

4.3. Linear Regression Analysis

DV refers to the variable to be predicted, whereas the independent variable is the variable utilized for predicting the other variable's value. Table 4 depicts the outcomes of linear regression analysis.

Table 4: Linear Regression Analysis Results

Variable	Coefficient	Standard error	t-test	p-value
Constant	-90.107	16.137	-6.669	0.000***
FINTECH	0.083	0.044	4.928	0.000***
BOARD SIZE	-0.411	0.398	-1.509	0.320
BOARD INDEP	0.125	0.070	3.212	0.055
WOMEN	0.511	0.088	7.360	0.000***
SIZE	5.029	0.808	7.784	0.000***
LEV	0.503	11.110	0.083	0.987
ROA	2.199	0.997	2.345	0.313
AGE	0.033	0.059	0.580	0.711
N	210			
Adj R^2	0.754			

According to the findings, the coefficient of FIN-TECH on ESG was 0.083, statistically significant at the 5% level. This recommended that ESG performance was improved by a high level of FinTech adoption in the banking sector, thereby supporting the study's hypothesis. Moreover, a positive and significant association with ESG was displayed by BOARD INDEP at the 5% level (t-value = 3.212). But, the coefficient for BOARD SIZE did not reach statistical significance (Dicuonzo et al., 2024).

4.4. PESTEL Perspective: Challenges & Opportunities

The fintech industry in India grew quickly, from 2,100 companies in 2021 to 10,200 in 2024. The ecosystem consists of one decacorn, twenty-five unicorns, and eighty-seven soonicorns, with a $125 billion valuation and $20 billion in FY23 sales. Attracting 85% of total financing, payments, and lending take centre stage (Chadha, 2024; Kulkarni et al., 2025). The sector is being revitalized by AI, blockchain, and digital assets (Heather et al, 2025).61% of consumers trade online, while only 16% use branches, according to the World Retail Banking Report 2024, indicating a shift toward digital-first banking. As consumer expectations and behaviour change, technology is changing the customer experience by providing faster, more secure,

and more individualized services. Examples of this include voice ID and conversational bots, which have a 53% adoption rate (Capgemini, 2024). The emerging themes in fintech, which will lead the country to the next era of growth as per the report (PwC, Assocham, 2024). Since Fin-tech continuously reshapes the financial services landscape, its development presents significant challenges and opportunities. The numerous opportunities and challenges related to adopting Fin-tech for sustainability in banks are explored in Table 4 using PESTEL analysis (Aithal and Prabhu 2025, Makvandi 2024).

Table 5: Challenges and Opportunities Based on PESTEL Analysis

Factors	**Challenges**	**References**
Political	Regulatory Ambiguity (Crypto, Blockchain) & Policy Uncertainty	Kumar, 2025; Pathrose, 2022; Awasthi & Shaukat, 2024; Das, 2024; Ganeshkumar, 2024
Economic	Credit Risk, Macroeconomic Uncertainty, And Margin Pressure	Anestiawati et al., 2025; Sikalao-Lekobane, 2022; Chand et al., 2025; Yudaruddin et al., 2024; Katsiampa et al., 2022
Social	Digital Gap, Low Financial Literacy and Security Concerns	Asif et al., 2023; Jena, 2025; Nam & Lee, 2023; Islam & Khan, 2024
Technological	High Information Technology Expenses, Cyberthreats, And Problems with Legacy Integration	Mittal et al., 2024; Verma, n.d.; Roy et al., 2025
Environmental	High Energy Consumption in Data Centres and E-Waste	Xiaobin et al., 2024; Zhang et al., 2024; Afjal et al., 2023; Kshetri & Dwivedi, 2023; Chen & Liu, 2024
Legal	Uncertain Crypto Regulations, Stringent Know Your Customer/Anti Money Laundering, And Data Localisation	Oluwaferanmi, 2025; Johnson, 2025; Liang et al., 2025; Mukherjee, 2025; Aksenova, 2024; Brogi & Lagasio, 2024; He.Y, 2024
Factors	**Opportunities**	**References**
Political	Government Initiatives (Digital India, Jan Dhan) & Reserve Bank of India (RBI) Sandbox	Prabhkaran & Rameshkumar, 2025; Divakar, 2022; Roy et al., 2025; Kamal et al., 2025; Saxena & Agrawal, n.d.
Economic	Cost Effectiveness, Financial Inclusion, and The Expansion of UPI-Led Payments	Ayyagari et al., 2025; Alok et al., 2024; Mishra et al., 2025; Sampath, 2023
Social	Post-Demonetization Cashless Trend, Tech-Savvy Millennials, and Customer Convenience	Chatterjee, 2024; Ramu et al., n.d.; Chakraborty et al., n.d.; Fouillet et al., 2021
Technological	Blockchain, Cloud Adoption, Artificial Learning/Machine Learning, Open Banking, and APIs	Somu, 2022; Raviteja, 2024; Spulbar & Carbune, 2025; Shacheendran et al., 2025
Environmental	Green Finance, ESG Financing, Sustainable Finance; Paperless Banking	Yadav et al., 2024; Sharma et al., 2025; Yadav & Kumar, 2025; Johri & Singh, 2024; Goel, 2025; Gidage & Bhide, 2025
Legal	RBI's Digital Lending Guidelines and The Data Protection Act of 2023	Gupta et al., 2024; Gupta & Kaur, 2024; Vaidya, 2024; Upadhyaya, 2023; Arya & Sharma, 2025

Overall, the adoption of FinTech for sustainability represents a double-edged sword. There are opportunities since it can speed up ESG goals, improve transparency, and democratise access to sustainable finance (Yadav et al., 2024; Sharma et al., 2025). Digital breakthroughs like blockchain, artificial intelligence, and green digital lending channels offer ways to increase accountability in ESG reporting and allocate resources more effectively towards low-carbon projects (Kumar, 2025; Somu, 2022). However, issues with technology hazards, socioeconomic disparities, and fragmented regulatory frameworks need to be proactively addressed (Mukherjee, 2025; Aksenova, 2024). To maximise FinTech's contribution to sustainable development while reducing the risks of digital exclusion and environmental trade-offs, a PESTEL analysis emphasises the importance of balanced policy design, technological safeguards, and multi-stakeholder collaboration (Afjal et al., 2023; Chen & Liu, 2024).

IMPLICTIONS, LIMITATIONS and SCOPE FOR FUTURE RESEARCH

5.1 IMPLICATIONS

The study offers a plethora of implications for mangers, industry as a whole and for the policy makers.

5.1.1 Implications for the Financial Organizations

The findings of the study clearly indicate that the firms that have adopted fintech are contributing to its ESG outcomes, transparency and efficiency. Thus, integrating financial technologies play a crucial role in sustainable development. Further the size of a firm as determinant of ESG performance has implications for larger financial firms to disclosure more in order to meet stakeholder information consumption requirements. This shall ensure the sustainability of the fintech firms reducing the risks of digital exclusion and environmental trade-offs.

5.1.2 Implications for the Managers

The findings of the study indicating the board independence as a key governance mechanism to enhance ESG performance is the good news for the corporate managers to look forward to and at the same time the positive influence of gender diversity in ESG achievement indicates the role of financial technology-

based services consumption in promoting corporate sustainability and stability. At the same time, it helps the managers to bridge the digital gap at the social and the gender levels.

5.1.3 Implications for Policy Makers

Considering the crucial role of policy makers in designing regulatory framework for the financial organizations it is sought that policy makers should add to their policies systems to protect the data of the users of technology and invest in cyber security systems to ensure sustainable development and safeguard the role of fintech innovations that are safeguarded against the cyber threats and are within the regulatory parlance.

5.2 Limitations

The study has a list of limitations since it based on cross-sectional data and longitudinal research design would help in inferring the causal relationship between fintech adopting and ESG performance. Further the study is limited a particular industry of the financial sector limiting the generalizability of results to other sectors in the economy. The study is based on secondary data collected from open sources therefore it may oversimplify the findings. The model may have the omitted variables that might be crucial for analysis.

5.3 Scope for Future Research

There is immense scope for future studies in this emerging area. First of all, future studies can use longitudinal data to study the temporal relationship between Fintech adoption and ESG performance. Secondly, they can do a sector wise analysis of data or industry wise classifications can be used to magnify the results. This study is empirical in nature and is based on secondary sources of data. A qualitative study design can bring in better insights from the managers in the financial organizations who have adopted fintech. Future studies can be study developed around the other aspects of fintech such as block chain, Robo advisory, mobile banking etc. Last but not the least the behavioural and cultural aspects can also be studied by bringing in a theoretical perspective to explain fintech adoption and ESG performance.

CONCLUSION

Analysing the role of fin-tech in corporate sustainability disclosure by integrating environmental, social, and economic aspects and exploring its financial implications is focused in the presented study. According to the study's findings, the corporate sustainability of ESG performance was significantly improved by the adoption of fin-tech in the banking sector. Further studies displayed that immense opportunities for innovation, inclusion, and efficiency in adopting the Fin-tech industry were presented by adopting Fin-tech. Nevertheless, realizing these opportunities required efficient addressing of regulatory, cybersecurity, infrastructure, and consumer trust challenges. As per the experts, the future of fin-tech will entail even more innovation, with an increasing emphasis on providing seamless 360-degree financial services as well as lowering traditional hurdles. Hence, from a future perspective, researchers can explore how banks understand their role in generating this fascinating novel environment and how the transformation happens.

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