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Article

The nexus of environmental, social, and governance practices with the financial performance of banks: A comparative analysis for the pre and COVID-19 periods

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FINANCIAL ECONOMICS | RESEARCH ARTICLE

The nexus of environmental, social, and governance practices with the financial performance of banks: A comparative analysis for the pre and COVID-19 periods

Muhammad Zahid¹*, Syeda Um-Ul-Baneen Naqvi¹, Amin Jan², Haseeb Ur Rahman^{3,} and Said Wali⁴

Abstract: This study aims to examine the impact of ESG practices on the financial performance of the banking industry of Pakistan during the pre and COVID-19 periods. The data were collected from the annual reports of selected banks for the pre-COVID-19 period (2018) and the COVID-19 period (2020). Results of the t-test show that there is a significant difference in ESG disclosures between the pre and during-COVID-19 periods. The regression analysis shows that the formative ESG factor positively affected the financial performance of the banking industry during the pre-COVID-19 period. While the reflective factors (environmental and social) positively affected the financial performance of the banking industry in the pre-COVID -19 period. During the COVID-19 period, the formative factor of ESG was found to have a significant positive impact on the financial performance of the banking industry. Similarly, in this period, the reflective factors (social and governance) were also found to have a significant positive impact on the financial performance of the banking industry. Interestingly, environmental sustainability negatively impacted the financial performance during the COVID-19 period. It indicates that the banking industry ignored environmental sustainability practices during the COVID -19 period, negatively affecting their financial performance. It suggests that ignoring environmental sustainability practices will deteriorate financial performance following the COVID-19 period. These results have profound policy implications for practitioners and policymakers in the banking industry, which are discussed.

Subjects: Environmental Economics; Finance; Business, Management and Accounting

Keywords: environmental; social; governance; disclosures; financial performance; COVID-19; banking industry

1. Introduction

Over the past several years, corporate social and environmental responsibility has received enormous attention in the banking industry. The advocates from this growing field proposed that responsible investment is an investment approach that considers environmental, corporate social responsibility, and corporate governance (Jan et al., 2022; Sjögren & Wickström, 2019). Environmental, Social, and Governance (ESG) performance is a broad term for sustainable and socially responsible corporate investments. Due to the increase in issues related to sustainability and world climate change, ESG has become a substantial part of firm strategies and practices.





More significant numbers of firms now pay attention to sustainable investment as a part of their mission and vision and compliance with Sustainable Development Goals (SDGs); Baah et al., 2021). The COVID-19 pandemic impacted stakeholders, including shareholders, customers, and employees. The pandemic has caused a physical shock to the ecological system; it caused a social and financial crisis in the form of a large number of deaths, social distancing policy, lockdown, and business closure.

The COVID-19 pandemic is the first sustainability-related crisis of the 21st century. The unexpected impacts of the COVID-19 pandemic lead the firm to rethink its sustainability practices (ESG) initiatives (Bogers et al., 2020). The descriptive approach of stakeholder theory argues that firms are responsible for ensuring the interest of their heterogeneous group of stakeholders (McWilliams et al., 2006). The firm that contributes to ESG initiatives will increase various stakeholders' values and ultimately increase shareholders' wealth while at the same time contributing to sustainability and social responsibility (Rehman et al., 2020). In the history of the global crisis, the worldwide results from the COVID-19 pandemic are considered more important, and its effects on the ESG activities could be more significant. Hence, during the COVID-19 pandemic, firms focus on ESG initiatives to create their image in the eyes of stakeholders by behaving more socially responsible. Similarly, such initiatives collectively ensure better firm value (Nirino et al., 2021). Corporate governance practices play a pivotal role in corporate performance, the firm that has strong corporate governance gets to benefit in the form of an increase in their financial performance and stable future growth (Bhagat & Bolton, 2019). On the environmental front, the firm environmental prevention practices improve the firm financial performance (Kalyar et al., 2019). Moreover, the firm's ESG practices safeguard the firm from stock price crash risk and adverse market reactions (Wu & Hu, 2019). On the social front, it is anticipated that the firm contribution to social activities is a driver of an increase in the firm market reputation and financial performance during the time of the economic crisis such as COVID-19 (Qiu et al., 2021).

The banking industry is considered the backbone of financial and monetary growth and has a twofold role in the sustainability of the country. The first role is (internal) which is to ensure ESG practices in their internal business operations, and the second role is (external) which ensures the disclosure of ESG practices in their credit and investment policies (Amina Buallay, Fadel, Alajmi et al., 2020). Several studies in the banking sector show that ESG practices have significantly influenced the financial performance of banks (Murè et al., 2021). Similarly, ESG and financial performance of the banking industry are extensive, but studies that investigate the ESG practice on financial performance in the context of the COVID-19 pandemic, especially in the banking industry, are found to be scant, and hence requires further investigation (Fayaz et al., 2021; Ur Rehman et al., 2020). Based on the above gap, there is a need to investigate the ESG practices trend in banking sectors during the crisis of the COVID-19 pandemic and to check out the impact of ESG practices on the financial performance of the banking industry for the pre and COVID-19 periods.

In the same vein, the main objectives of this research are first to investigate the trend of ESG disclosures in the banking industry for the pre and COVID-19 periods. Secondly, to examine the differences between the ESG disclosures of the banking industry for the pre and COVID-19 periods. Finally, to investigate the impact of ESG disclosures on the financial performance of the banking industry for the pre and COVID-19 periods.

Achieving the above objectives, this study contributes to the literature and practice in several ways. Firstly, the study has a theoretical contribution by applying the stakeholder theory to the relationship between ESG practices and financial performance using accounting measure i.e. Tobin's Q. Secondly, the study investigates the levels and impact of ESG practices on firm financial performance in the Pakistani banking industry particularly in the pre and during crisis periods of COVID-19. Thirdly, the study has theoretical significance by investigating the aforementioned relationships in the developing countries context. Finally, the study has practical implications and insights for the practitioners of banks, policymakers, regulatory bodies, and governments in

making policies that incorporated sustainable, socially responsible, and environmental aspects, particularly at the time of crises such as COVID-19.

This study is divided into the following sections. Section 1 is about the introduction. Section 2 is about the literature review of the study. Section 3 is methodology. Section 4 discusses the results and discussion. Section 5 presents the conclusion and future avenues.

2. Literature review

2.1. Conceptualization of the ESG disclosure

The phenomenon of Environmental, Social, and Governance (ESG) is now widely used in business and financial markets. On a large scale, firms are trying to incorporate sustainable and socially responsible practices with the ESG framework. It is an indicator of the firm's non-financial performance, firm management competencies, and risk management ability (Tarmuji et al., 2016). The ESG evaluates the firm contribution to issues related to environmental, social, and governance. The environmental factor evaluates a firm contribution to energy, natural resources protection, carbon dioxide emission, water consumption, waste, and pollution. The corporate social factor includes gender equality, employee health safety and protection, legal trade, and human right. While corporate governance indicates the responsibility of management, leadership, corruption, money laundering prevention, and reporting.

The concept of ESG began in late 1970 when the investors showed their interest in the disclosure of the firm's social and environmental performance in company reports (Belkaoui & Karpik, 1989; Neu et al., 1998; Wiseman, 1982). The second wave of ESG occurred in 2006 when the United Nations Principle of Responsible Investment (PRI) highlighted the notion of environmental, social, and governance practices and provided a framework that monitors investor decisions (Eccles & Stroehle, 2018). The third concept highlighted by the GRI framework developed from the collaboration of UNEP (United Nations Environmental Program) and CERE (Coalition for Environmentally Responsible Economies) is based on environmental issues but the third generation (G3) of GRI focuses on practices beyond environmental issues. The GRI framework covers six categories that include economic, environmental, corporate social responsibility, human rights, and employee safety. The GRI framework covers the corporate governance factor of ESG issues in its economic category. The recent generation (G4) of GRI was issued in 2013 which is widely used by companies, government, and regulatory bodies that establish standards for ESG practices and reporting.

2.2. Previous studies on ESG

Previous literature has found that ESG practices were rapidly explored (Alareeni & Hamdan, 2020). Numerous studies have focused on the corporate financial performance of the company. Most of the researchers considered only one factor of ESG such as environmental, corporate social responsibility (CSR), or corporate governance. Most of these studies on ESG and corporate financial performance only considered one factor among the three reflective factors of ESG (Barnett & Robert, 2012). All three ESG factors are interconnected; therefore, neglecting any factor among these factors will make it difficult to evaluate the actual connection between ESG practices and firm financial performance. Based on the above confines, a study that considers ESG in all aspects is needed (Alareeni & Hamdan, 2020).

2.3. The ESG practices in COVID perspectives

In the COVID pandemic, the sustainable (ESG) reporting standards and framework took a central position in the annual reporting of firms (Adams & Abhayawansa, 2021). The researchers are constantly exploring the importance of ESG and COVID-19. Díaz et al. (2021) argued that the ESG components, i.e., social and environmental practices, had significant importance during COVID-19. Several previous studies have focused on the COVID-19 pandemic's downfall and ESG practices' impact on firm value (Rubbaniy et al., 2022; Folger-Laronde et al., 2020; Takahashi & Yamada, 2021). Most of these studies found that ESG practice and firm performance are interrelated in the

COVID-19 pandemic, and the firm with higher ESG practices had superior performance than a firm with lower ESG practices. Prior studies only considered social and environmental factors among ESG factors based on a few months of data collected from the period of COVID (Bae et al., 2021). Those studies considered ESG factors beyond social practices and were based on the annual data during COVID-19 and pre-COVID-19 period.

2.4. Theoretical framework

The firm's ESG practice meets the need of various stakeholders more sustainably and responsibly. the stakeholder theory purely supports this concept (Donaldson & Preston, 1995). The stakeholder theory suggests that the key objective of the firm is to maximize the value for all stakeholders by minimizing the damage they cause to society and the environment through its business operations. This theory considers the well-being of all stakeholders which include both primary stakeholders (shareholders, employees, customers, and suppliers) that are directly connected with the firm and the other secondary stakeholder that indirectly connect with the firm (Clarkson, 2016). If the firm can meet the need of its various groups of stakeholders, it will be able to maximize its overall corporate wealth (Crowther, 2008). The crux of the stakeholder theory also explains that management of the firm is responsible for managing the overall stakeholder management with respect to environmental, social, and governance dimensions. For the purpose, they are required to manage the company during times of crises such as COVID-19. Moreover, previous studies also applied the postulations of the stakeholder theory in similar nature of studies to test the hypotheses (Chen & Yang, 2020; Folger-Laronde et al., 2022). Hence, the stakeholder theory fits the theoretical base of the hypotheses in the upcoming sections. The theoretical framework depicts in the conceptual framework as follows (see, Figure 1).

2.5. Research hypotheses development

The following section explains the development of the hypotheses.

2.5.1. ESG practices levels overtime

Attention is given to sustainability practices incorporating ESG practices (Jamil & Siddiqui, 2020). The firm's ESG disclosure in its annual reports with overall stakeholder interest ensures investor perception and trust improvement. The stakeholder theory suggested that firms disclose their ESG practices to stakeholders over time due to pressure from society, economic, environmental, government, and ethical issues (Nirino et al., 2021). Also, it is found that ESG practices improve in developing countries overtime because of improvements in public awareness, media interest, investor pressure, legislation, economic rewards, and social awards and special events (Arayssi et al., 2020; M. M. Zahid et al., 2019). The authors further noted that to follow policy and regulation, all firms make more efforts to legitimize their operating processes. In this order, the firms disclose





more ESG activities in their annual reports (Pedersen et al., 2020). However, as explained in the following section, the pandemic situations such as COVID-19 may reduce the level of ESG practices at the firm level. Furthermore, ESG practices may be reduced further in developing countries where firms' primary focus is to maximize the shareholders' wealth rather than the stakeholders.

2.5.2. ESG practices for the pre and during COVID-19 period

The COVID pandemic refocused the interconnection between the planet, profit, and people, particularly among climate change, health, and poverty in the global business environment. The pandemic considers social practices as an essential practice among ESG and revalues the importance of the environment. The business world faces the delicacy of liquidity, labour health and safety, market risk, and supply chain-related issues during COVID (Adams & Abhayawansa, 2021). Furthermore, the increasing climate change during the COVID-19 pandemic further exposes the firm's vulnerability (Franklin, 2021). The researchers found a bond between the ecological crisis and the rapid spread of new zoonotic coronavirus-infected diseases. Most of these studies determine that the COVID pandemic may quickly spread due to deforestation and increasing climate change (Gibb et al., 2020). Most of these studies have found that firm-sustainable (ESG) practices in the uncertainty and volatility of the COVID-19 pandemic look more productive. The previous study analyzed the correlation between ESG and financial performance in the COVID-19 context. It is analyzed that the firms contributing to social and environmental risk will be ready for any adverse situation and react to them very well (Whieldon et al., 2020). Against the following background, the following hypotheses are proposed.

H1: There is a significant difference in ESG disclosures of the banking industry of Pakistan for the pre and COVID-19 periods.

H1a: There is a significant difference in environmental disclosures of the banking industry in Pakistan for the pre and COVID-19 periods.

H1b: There is a significant difference in social disclosures of the banking industry in Pakistan for the pre and COVID-19 periods.

H1c: There is a significant difference in governance disclosures of the banking industry in Pakistan for the pre and COVID-19 periods.

H2: There is a significant positive impact of ESG disclosures on the financial performance of the banking industry in Pakistan for the pre-COVID-19 period.

H2a: There is a significant positive impact of environmental disclosures on the financial performance of the banking industry in Pakistan for the pre-COVID-19 period.

H2b: There is a significant positive impact of the social disclosures on the financial performance of the banking industry in Pakistan during the pre-COVID-19 period.

H2c: There is a significant positive impact of the governance disclosures on the financial performance of the banking industry in Pakistan for the pre-COVID-19 period.

H3: There is a significant positive impact of ESG disclosures on the financial performance of the banking industry of Pakistan during the COVID-19 period.

H3a: There is a significant positive impact of the environmental disclosures on the financial performance of the banking industry of Pakistan during the COVID-19 period.

H3b: There is a significant positive impact of the social disclosures on the financial performance of the banking industry of Pakistan during the COVID-19 period.

H3c: There is a significant positive impact of the governance disclosures on the financial performance of the banking industry of Pakistan during the COVID-19 period.

2.5.3. Control variables

The firm size has been substantially used as a control variable in previous studies of ESG practices (Drempetic et al., 2019). Previous studies illustrate that firm size positively affects the ESG practices of the firm. The large size of the firm best consent to sustainability and ESG practices, the bigger the firm size, the more it would contribute to environmental, social, and governance performance. A reasonable concept behind this correlation is that the large size of the firm is under the perusal of a huge number of stakeholders (Seroka-Stolka & Fijorek, 2020). Most prior studies found that the age of the firm is also an essential element that affects firm ESG performance and considers a control variable (Dissanayake et al., 2016). Correspondingly, these prior studies explore a significant positive effect of firm age on ESG practices, as older businesses report containing a huge part of their sustainable practices incorporated their contribution towards climate change, biodiversity, social, and corporate behaviour issues (Kansal et al., 2014). Accordingly, empirical studies found that the leverage ratio also affected ESG practices of the firm. The prior study analyzes that lending is also a control variable that significantly affects the ESG and sustainable practices of the banks (Erwin et al., 2018).

3. Methodology

The population of the study consists of all banks registered with the State Bank of Pakistan (SBP). There were total 24 banks registered on the SBP; however, due to the availability of data, total 19 banks were utilized as a sample for 03 years, i.e., year 2018 and year 2020, and hence, the study utilized 57 annual reports for the final analysis. The study utilized a purposive sampling technique to select the sample from the population. The period selected for the data collection is composed of the pre-COVID period (2018–2019) and the year 2020 considered the (during COVID-19 period). The data of this study are secondary that were collected from the annual reports of selected banks through a content analysis approach. The data collection approach is explained in the next section.

3.1. Measurement of variables

The content analysis approach is used to collect quantitative data from annual reports regarding ESG as per the dummy coding (Cantino et al., 2017). The ESG practices of this study are based on an adapted index (Rehman et al., 2020; Muhammad; Zahid, Rehman et al., 2020). The ESG practices index is based on two points: 1 for ESG reporting and 0 for no reporting. Higher scores from the content analysis show higher ESG performance. The ESG was scaled on total 81 items including 18 items of environmental, 51 of social, and 12 for governance, respectively. Based on prior studies, this study uses Tobin's Q ratio to measure bank performance (A. Buallay, 2019; Deng & Cheng, 2019). Tobin's Q is calculated as the value of the stock market divided by the value of equity books. The control variables are leverage ratio, age, and bank size suggested by prior literature (Shakil et al., 2019). The bank size control by taking the log of assets, firm age calculated by business age measure, leverage ratio determined by dividing total debts by total equity, lending controlled by the bank lending amount and lag of Tobin's Q.

3.2. Model estimation

The descriptive statistics and the Pearson correlation test were used to test the validity of the data. The independent-sample t-test was used to measure the change in levels of ESG disclosure for the (pre and during) COVID-19 periods. The regression analysis through SPSS is used to determine the ESG impact on the financial performance banking industry for the (pre and during) COVID-19 periods. The econometric models for this study are as follows.

$$FP = \alpha + \beta 1ESG_{it} + \beta 2SIZE_{it} + \beta 3AGE_{it} + \beta 4LEVERAGE_{it} + \beta 5LENDING_{it} + \beta 6LAGOFTOBIN'SQ + \varepsilon$$

(1)

(2)

$$FP = \alpha + \beta 1 E_{it} + \beta 2 S_{it} + \beta 3 G_{it} + \beta 4 SIZ E_{it} + \beta 5 AG E_{it} + \beta 6 LEVERAG E_{it} + \beta 7 LENDIN G_{it} + \beta 8 LAGOFTOBIN'SQ + \varepsilon$$

4. Results and discussion

4.1. Pre-regression test and results

The descriptive statistics with Kurtosis and Skewness show that some variables were not normally distributed due to abnormal outliers; therefore, the data were normalized using the Van der Waerden data distribution method. The normalized data with the kurtosis and Skewness shown in Table 1 is ranging from +3 and the Skewness range +1.96 (De Lucia et al., 2020). The maximum statistics and minimum statistics with the mean statistics are given in Table 1. The data were collected from 57 annual reports of 19 banks for the (pre and during) COVID-19 period for the years 2018 and 2020.

4.2. Descriptive statistics

Table 1 shows descriptive statistics for the dependent and independent variables from the given sample of 57 annual reports of 19 banks registered with SBP over a data period of 02 years including pre and during the COVID-19 period. The minimum and maximum values for Tobin's Q are 0.17 and 1.20 subsequently. The standard deviation is 0.14, while the mean statistics is 0.95. It shows that the financial performance using Tobin's Q ratio at a given period i.e. 2018 and 2020 is stable. The minimum and maximum values for the ESG index are 30 and 74 subsequently. The mean value of the ESG index is recorded at 57.28. The minimum statistic value, maximum statistic value, and mean value of environmental disclosure are 1, 15, and 8.72, respectively. Table 1 further shows that the minimum, maximum, and mean values for social disclosure are 21, 51, and 39.61, respectively. The minimum, maximum, and mean values for governance disclosure are reported with the values of 6, 11, and 8.95, respectively. Furthermore, Table 2 indicates that COVID-19 affected the overall disclosure values of ESG and its dimensions and reduced compared to the pre-COVID-19 period. Neither company achieved the maximum ESG disclosures in both periods, a total of 81.

The overall results of ESG disclosure from the banking industry show that in the given period the banking industry is highly engaged in social practices compared to environmental and governance practices. Results from Table 1 and 2 based on the controlled variables of the firm size of the bank show the minimum, maximum, and mean values of 1.23, 38.49, and 10.04, respectively. These results show that the banking industry has positively increased and expanded its assets in pre and COVID-19 period. Similarly, the results of Table 1 show that the minimum, maximum, and standard deviation values of the leverage ratio are 7.50, 23.97, and 4.53, respectively. These results show that the banking industry is dependent on debts for the financing of its operations. The minimum maximum and mean statistics for the controlled variable of lending are 1.00, 3.42, and 0.37, respectively, which shows an increase in lending amount. Finally, the results in Table 1 based on the firm age show that its minimum, maximum, and mean values are 8, 157, and 29.84, respectively. It indicates that the banking industry is already operating for a decade and is mature enough.

4.3. Pearson's correlation matrix

The normal data were then processed through the Pearson correlation matrix test to check the correlation among the predictors. If the correlation between the two predictors is found to be less than 0.90, this is indicating that there is no problem with multicollinearity (Duque-Grisales & Aguilera-Caracuel, 2019; Ur Rehman et al., 2020). Based on the above argument, Table 3 shows

Table 1. Descrip	otive statistics								
	z	Min	Μαχ	Mean	S.D	Skewn	ess	Kurt	osis
Variables	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	S.E	Statistic	S.E
Tobin's Q	57	.17	1.20	.95	.14	-2.91	.32	16.81	.62
ESG	57	30	74	57.28	9.70	85	.32	62.	.62
Environmental	57	1	15	8.72	3.61	69	.32	08	.62
Social	57	21	51	39.61	6.94	-1.02	.32	.71	.62
Governance	57	9	11	8.95	1.02	098	.32	.88	.62
Total Assets	57	1.23	38.49	10.04	8.87	1.56	.32	2.02	.62
Firm Age	57	8	157	29.8	32.64	3.25	.32	10.31	.62
Leverage	57	7.50	23.97	14.5	4.53	.25	.32	-1.07	.62
Lending	57	1.00	3.42	0.37	0.611	3.19	.32	11.92	.62

I able 2. Descript	IVe statistics (pre	ana auring covid	(FI-1					
		Pre CO	VID-19			During C	OVID-19	
Variables	Min	Max	Mean	S.D	Min	Max	Mean	S.D
TobinsQ	.170	1.199	.945	.160	.831	1.205	.964	.091
ESG	33.00	74.00	57.61	9.80	30.00	00.69	56.63	9.71
Environmental	1	15	6	4	1	14	8	c
Social	23	51	40	7	21	48	39	7
Governance	7	11	6	1	9	11	6	1
Total Assets	122.765	3227.132	937.405	845.622	158.996	3849.063	1138.540	974.940
Firm Age	8	156	29	33	10	157	31	33
Leverage	7.502	23.977	14.656	4.696	7.838	22.393	14.43	4.304
Lending	1.202	223.689	33.828	50.568	1.000	342.069	43.143	79.328

Table 3. Pearsd	on's correlation i	matrix							
	(1)	(2)	(3)	(7)	(2)	(9)	(2)	(8)	(6)
Tobin's Q (1)	1								
ESG (2)	.243	-							
Environmental (3)	.327*	.790**	1						
Social (4)	.133	.924**	.553**	1					
Governance (5)	.166	.376**	.215	.236	1				
Total Assets (6)	.368**	.660**	.404	.650**	.426**	1			
Firm Age (7)	.111	.251	150	.364**	.166	.388**	1		
Leverage (8)	.528**	002	.151	105	052	.008	148	T	
Lending (9)	.182	.242	.347**	.126	.073	.387**	.065	123	1
*.Correlation is sign **.Correlation is sign	nificant at the 0.05 h nificant at the 0.01 h	evel (2-tailed). level (2-tailed).							

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Table 4. Group	o statistics				
	COVID-19	N	Mean	Std. Deviation	S.Error Mean
ESG	Pre	19	56.8421	9.91779	2.27530
	During	19	56.6316	9.70802	2.22717
Environmental	Pre	19	8.16	4.180	.959
	During	19	8.47	3.454	.792
Social	Pre	19	39.74	7.117	1.633
	During	19	39.26	7.007	1.607
Governance	Pre	19	8.95	.848	.195
	During	19	8.89	1.286	.295

that there is no multicollinearity problem detected in our data because the correlation between two predictors was found to be equal to or less than 0.90. Moreover, the high correlation would not be an issue if not correlated with the dependent variable (Tobin's Q; Husted & Sousa-Filho, 2017). Furthermore, the VIF values also show that multicollinearity did not affect the regression analysis since all the values are below 5.0 (Hair et al., 2006) reported at the end of each regression equations see, Table 6-9.

4.4. Difference in ESG disclosure levels between the Pre and during COVID-19 periods

The normalized data was further passed through an independent sample t-test to measure the difference in ESG disclosure of the banking industry for the (pre and during) COVID-19 periods.

Table 4 shows pre and during COVID-19 group statistics with no significant changes.

Table 5 shows the t-test value for ESG is 0.066 with a p-value of 0.004 which is greater than the significant value of 0.05. This result supports H1 of the study. The p-values of t-test for reflective factors of ESG such as environmental, social, and governance are 0.08, 0.843, and 0.007, respectively. Based on these results, H1a and H1c of the study are supported. Since the p-value for social sustainability remained insignificant, hence it rejects H1b. These results are in

line with the first hypothesis of the study and underpinning theory which indicates a significant change in ESG disclosure in the banking industry for the pre and during COVID-19 periods (Jamil & Siddiqui, 2020; Nirino et al., 2021). Therefore, it is concluded that there is a significant change in the reflective ESG disclosures of the banking industry for the (pre and during) COVID-19 periods (Ur Rehman et al., 2020).

4.5. Regression results

The regression analysis in Table 6 explains the model summary on the formative as well as the reflective dimensions of the ESG practices for the pre-COVID-19 period. The R² indicates a 41% variation in the dependent variable (Tobin's Q) due to changes in independent variables. Table 6 based on the formative factor of ESG in terms of its p-value of 0.000 shows that the ESG practices were positively affecting the financial performance of banks for the (pre-COVID-19 period), hence it approves H2.

Results based on the reflective factor (E) environmental disclosure show that it has a significant positive impact on the financial performance (Tobin's Q) of the bank for the (pre-COVID-19) period, i.e., p < 0.000. These results are in support of stakeholder theory which suggests that sustainable business practices enhance the financial strength of firms. The results also align with previous studies showing a positive impact of ESG on firm financial performance (Rahman et al., 2021; Muhammad; Zahid, Rahman et al., 2020).

Table 5. Indeper	ndent Sample t-tes							
				t-tesi	t for Equality of N	1eans		
					Mean		95% Confidence Differ	Interval of the ence
		t	df	Sig. (2-tailed)	Difference	S.E Difference	Lower	Upper
ESG	Equal variances assumed	.066	36		.210	3.183	-6.667	6.246
	Equal variances not assumed	066	35.984	.948	210	3.183	-6.667	6.246
Environmental	Equal variances assumed	.143	36	.008**	.044	.307	579	.668
	Equal variances not assumed	.143	34.085	.887	.044	.307	581	.669
Social	Equal variances assumed	.200	36	.843	.061	.30	681	.558
	Equal variances not assumed	.200	35.943	.843	.061	.305	681	.558
Governance	Equal variances assumed	.181	36	.007**	.053	.294	651	.544
	Equal variances not assumed	.181	32.625	.858	.053	.294	653	.547

** p<.01, * p<.05

* cogent - economics & finance

Table 6. The n	exus of ESG disc	losure and firm	performance fo	r the (pre-COVI	D-19 Period)
Dependent variable Tobin's Q (Model R2 = 0.407; F = 3.429**)	Coefficient	Std. Error	t-value	p-value	VIF
(Constant)	-0.007	0.108	-0.063	0.951	-
ESG (Formative)	0.112	0.034	3.294	0.000***	1.845
Total Assets	0.081	0.268	0.302	0.768	1.500
Firm Age	0.080	0.186	0.432	0.675	2.372
Leverage	-0.134	0.156	-0.861	0.409	1.231
Lending	-0.056	0.199	-0.279	0.786	1.409
Lag of Tobin's Q	0.828	0.167	4.958	0.001**	1.241

***p < .01, **p < .05, *p < .1

These results support (Boakye et al., 2020; Shakil et al., 2019) which alludes that environmental disclosures have a significant association with financial performance (Tobin's Q), it also approves H2a. Furthermore, the results from Table 7 show that reflective factor (S) social sustainability also has a significant positive impact on financial performance of the banks for the pre-COVID-19 period. These results are also in line with (Boakye et al., 2020; Ur Rehman et al., 2020; Shakil et al., 2019), who argued that social sustainability positively affects financial performance. These results support H2b. The results on the last reflective factor of (G) governance were found to be insignificant against Tobin's Q which suggest that the banks' governance for the pre-COVID-19 period remained ineffective towards incorporating sustainable business practices, and, hence, it rejects H2c (Rehman et al., 2020). Among the controlled variable, only size (total assets) showed a significant impact on financial performance (see, Table 6). It alludes that the size does control the variation between ESG disclosure and firm performance in the banking sector for the pr-COVID-19 period.

The regression analysis for the COVID-19 period explained in Table 8 and 9 explains for the ESG practices and its dimensions. Results on the formative ESG factor show that ESG practices positively affected the financial performance of the banking industry for the COVID-19 period. These

Table 7. The ne	exus of ESG dim	ensions and firn	n performance	for the (pre-COV	/ID-19 Period)
Dependent variable Tobin's Q (Model R2 = 0.531; F = 3.957**)	Coefficient	Std. Error	t-value	p-value	VIF
(Constant)	0.011	0.128	0.084	0.934	-
Environmental	0.544	0.207	2.623	0.014**	2.641
Social	0.549	0.249	2.206	0.036**	3.686
Governance	-0.145	0.200	-0.728	0.473	1.544
Total Assets	0.440	0.237	1.857	0.074*	3.236
Firm Age	0.221	0.172	1.283	0.210	1.727
Leverage	-0.200	0.163	-1.221	0.232	1.653
Lending	-0.251	0.191	-1.313	0.200	1.904
Lag of Tobin's Q	0.437	0.169	2.591	0.015**	1.548

***p < .01, **p < .05, *p < .1

Table 8. The n	exus of ESG disc	losures and firn	n performance f	or the (COVID-1	9 Period)
Dependent variable Tobin's Q (Model R2 = 0.889; F = 16.035***)	Coefficient	Std. Error	t-value	p-value	VIF
(Constant)	-0.031	0.089	-0.063	0.951	-
ESG (Formative)	0.22	0.019	11.57	0.000***	1.987
Total Assets	0.019	0.147	0.132	0.897	2.660
Firm Age	0.010	0.102	0.101	0.921	1.227
Leverage	-0.144	0.134	-1.070	0.306	1.782
Lending	-0.025	0.104	-0.240	0.814	1.444
Lag of Tobin's Q	0.804	0.138	5.837	.000***	2.364

***p < .01, **p < .05, *p < .1

results affirm that the importance of ESG practices has increased during the COVID-19 pandemic for financial performance. Keeping in view Tobin's Q results it is noted that the customers got affected socially and environmentally due to the strict actions taken to contain the spread of the virus. Hence, the stakeholders are now more interested in those banks which benefit them socially and environmentally. The above results approve H3. The results align with previous studies that found a positive impact of ESG on firm financial performance (Ur Rehman et al., 2020; Muhammad; Zahid, Rahman et al., 2020).

Results in Table 9 show that the reflective factor of (E) environmental disclosures has a negative and significant impact on financial performance (Tobin's Q) during the COVID-19 period. The above results reject H3a. Furthermore, these results show that the banks are not focusing more on safety issues rather than green environmental practices. It is because the banks got financially affected by the pandemic and due to that their prime focus shifted toward financial issues rather than the green environment. And in the process, they have oversighted their focus on environmental sustainability practices. The findings are in line with the previous authors who found the effect in the same direction (Muhammad Zahid, Rahman et al., 2020). Results based on the reflective

Table 9. The nexus of ESG dimensions and firm performance for the (COVID-19 Period)					
Dependent variable Tobin's Q (Model R2 = 0.892; F = 10.318**)	Coefficient	Std. Error	t-value	p-value	VIF
(Constant)	-0.007	0.108	-0.063	0.951	-
Environmental	-0.125	0.024	-5.20	0.000***	3.548
Social	0.139	0.032	4.242	0.000***	3.037
Governance	0.276	0.103	2.679	0.001**	1.355
Total Assets	0.081	0.268	0.302	0.768	2.574
Firm Age	0.080	0.186	0.432	0.675	2.485
Leverage	-0.134	0.156	0.861	0.409	2.049
Lending	0.051	0.199	0.256	0.783	2.520
Lag of Tobin's Q	0.828	0.167	4.973	0.001	2.957

***p < .01, **p < .05, *p < .1

factor (S) social disclosure show that it has a positive impact on the financial performance of the bank in the COVID-19 period. It approves H3b of this study and indicates that the banks have somehow addressed the social needs of their stakeholders during the COVID-19 pandemic. Results are in line with the previous authors (Muhammad Zahid, Rahman et al., 2020).

Furthermore, the results of the final reflective factor (G) governance show that it has a significant positive impact on the financial performance of banks for the COVID-19 period which support H3c of the study. These results further show that the banking industry is now more focused on its governance structure to improve sustainable business practices following the COVID-19 pandemic. These results are in line with previous studies (Amina Buallay, Fadel, Al-Ajmi et al., 2019) in that the governance disclosure has a significant association with Tobin's Q. The (pre and during) COVID-19 period comparison of the ESG practices provides important insights for practitioners from the banking industry towards understanding the current demands of various stakeholders and accordingly to strategies for it while attaining greater financial performance. Better financial performance is vital to banks after COVID-19 because COVID-19 badly affected the financial performance of banks.

5. Conclusion and way forward

This study first investigates the difference in the ESG practices of the banking sector for the (pre and during) COVID-19 periods. Secondly, it also investigates the impact of the ESG disclosures on the financial performance of the banking industry for the (pre and during) COVID-19 periods. The results of the first objective indicate that there is a significant change in the ESG disclosures of the banking industry of Pakistan for the (pre and during) COVID-19 period, i.e., from 2018 to 2020. The results are in line with the first hypothesis of the study which suggests that there is a significant difference in ESG practices of the banking industry for the (pre and during) COVID-19 periods as reflected by the positive change in the mean values of the t-statistics. Therefore, it implies that the banking industry is focusing more on ESG practices following the COVID-19 pandemic. It might be due to the fact that the pandemic has changed the dynamic of every business sector including the banking industry. Therefore, it seems that the banking industry has realized to get ready for any such circumstances in future by mitigating its adverse effects through increasing compliance to good environmental, social, and governance practices. The findings also explain that the formative factor of ESG remained significant for both the (pre and during) COVID-19 periods. Interestingly, the formative factors vary in their impact for the (pre and during) Covid-19 periods. For instance, during the (pre-COVID-19) period, the reflective factors (environmental and social) had a significant while the governance factor had an insignificant impact on the financial performance. However, the insignificant effect of governance factor in pre-COVID-19 period became significant in COVID-19 period. Interestingly, environmental sustainability was found to have a significant negative impact on the financial performance of the banking industry for the COVID-19 period. It suggests that environmental sustainability has not been seriously addressed by the banking industry during the COVID-19 period that negatively affected their financial performance. Overall, the results provide important policy recommendations for the government, regulatory bodies, and practitioners of the banking industry to improve their financial performance and economic stability through prudent ESG practices. Achieving better financial performance is vital to any financial institution after COVID-19. Because COVID-19 has badly affected the financial performance of various industries in Pakistan including the banking industry. The study update the banking industry on the importance of managing multiple stakeholders in the pandemic and crisis situations. Besides, the study also contributes to the literature on the nexus of ESG practices and financial performance in the banking industry of a developing country like Pakistan, especially in pandemic situations.

Alongside implications, the study has some limitations which may be covered in future studies. Firstly, this study is based on one-year data for each of the pre and COVID-19 periods. Hence, future studies may increase the corresponding period. Secondly, future studies may consider the comparison of conventional and Islamic banking industries. Thirdly, future studies may also consider the qualitative aspect of this inquiry. Last but not least, future researchers may also focus on other industries as well. Besides, the model of the study may also be replicated in other developing countries.

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