Book Chapter

Corporate Social Responsibility and Financial Performance: Evidence from Pakistani Listed Banks

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Abstract

This study intends to examine corporate social responsibility (CSR) in Pakistan's banking sector, CSR disclosure practices and their impact on financial performance. For the study, relevant data was collected from the banks' annual reports, financial websites, the State Bank of Pakistan (SBP) and the Pakistan Stock Exchange (PSE) from 2008 to 2018. The methods utilized in this research study were content analysis and panel data techniques. The results indicate an increase in overall CSR disclosure by all banks in the sample and the findings suggest the involvement of commercial banks in CSR activities, and its proper disclosure has helped to improve their accounting-based financial performance proxied by the return on equity (ROE) and return on assets (ROA). The research findings contribute to a better understanding of the CSR practices in the financial sector of an emerging country, which makes a dynamic effort to develop its financial culture and can encourage rapprochement with Pakistan's financial sector.

Keywords

Corporate Social Responsibility; CSR Disclosure; Financial Performance; Stakeholder Theory; Content Analysis

Introduction

Many firms, including banks, have begun to recognize corporate social responsibility (CSR) as an important issue [1]. CSR emerged in the financial sphere as a safeguard against financial scandals and the decreasing reputation of banks. In recent decades, the CSR practices of companies have attracted the attention of shareholders, employees, customers, NGOs and other stakeholders, including regulating bodies across the world. Due to its increasing trend and importance, a number of financial institutions, including the banking sector, have incorporated CSR in their operations and in their corporate strategies [2]. Nowadays, the role of banks goes beyond financial and economic stability, focusing on essential customer services and decreasing financial barriers. The banking sector is a vital component of a country's economic growth and stability [3], and reliability and security lead to the broader external welfare of the public. At the same time, its role is highly discernible to the ordinary people evaluating its performance. A variety of stakeholders—owners, management, creditors, debtors and regulating authorities—are involved [4]. This sector accepted the concept of CSR and its corresponding challenges in the corporate world relatively late. At first, it encountered environmental issues, and then social issues [5]. According to Lentner et al. [6], central banks became accountable for sustaining financial stability after the 2008 financial crisis, and got involved in the advancement of their CSR strategies. During the past few decades, the notion of CSR has been increasing rapidly in all sectors, including banking sectors across the world [7]. Besides the profit-maximizing factor, investors also desire that banks be transparent in their approaches and focus on social and environmental risks.

CSR is a form of self-regulation and can be adopted by an organization as a part of their business model [8], and makes a company socially accountable to itself, its stakeholders and the public. A socially responsible business is expected to act in a way that is ethical, contributes efficiently to minimizing the harms of the business operations and gain the maximum benefit associated with socially responsible goods and services [9].

CSR-related activities include a firm's participation in cause marketing, donations and charity, social welfare, disaster relief, pollution control and transparency, which benefit the organization and add to the firm's long-term survival in the market.

Pakistan is the world's fifthmost populous country [10], and as an emerging South Asian market economy, it is one of the next 11 countries likely to show significant economic growth in the 21st century [11]. However, it is confronting many social and economic problems, such as political and economic instabilities, a lack of health and educational facilities, corruption, human rights violations, child labour, low standards of living, water pollution due to the mismanagement of industrial wastage and deforestation. Therefore, there is a dire need to promote research in CSR in Pakistan to increase understanding and highlight the need and importance of CSR among public and regulatory bodies. A number of Pakistani firms have realized the long-term advantage of CSR initiatives and its disclosure, and have consequently made CSR policies a part of their business processes [1,12]. However, businesses in Pakistan meet several challenges while implementing and practicing CSR due to a lack of the required knowledge about the CSR notions, its proper disclosure and insufficient motivation [13]. Some research studies have attempted to explore CSR and its disclosure practices in Pakistan [1,13–16].

A handful of studies have been carried out on the CSR disclosure and firms' financial performance (FP) relationships in Pakistan—most of these focusing on manufacturing concerns [17–20]. Less focus is given to the financial sector, and CSR and is measured in terms of assistance and investment in philanthropy, health, education and the welfare of the community [21,22]. Little attention has been paid to the significance of other stakeholders, as defined in stakeholder theory.

Similarly, studies on CSR-related issues, as well as their disclosures in Pakistan, are inadequate since the disclosure of CSR actions has not been a prevalent practice [23–26]. The

progress and understanding of CSR practices grew after 2008 in Pakistan when, for the first time, the Security and Exchange Commission of Pakistan (SECP) devised the Companies General Order in 2009, following CSR and the disclosure practices of firms [1]. Although CSR practices have progressed in past ten years, they are still in the developing stage due to the voluntary nature of its disclosure [12,27].

This study aims to understand the relationship between CSR and banking in Pakistan. It contributes to the existing literature and methodological measurements on CSR disclosure and practices by developing a CSR index to analyze and interpret the relationship between CSR and the financial performance of listed banks in Pakistan. This study also determines CSR disclosure and practices in Pakistani listed banks and the impact of CSR on their financial performance. The prime reason for this study is the point that the majority of research on CSR disclosure issues has been conducted in developed countries [28–36]. Likewise, studies on CSR practices in developing nations are inadequate [37–41]. Research on the CSR disclosure and financial performance relationship in the context of Pakistan is not enough, particularly in the financial sector. This study will help the concerned regulating bodies to develop and ensure the implementation of a standard framework on CSR practices and its disclosure to promote corporate transparency in CSR activities in Pakistan. Research on the issues related to CSR and disclosure practices in Pakistan, based on stakeholder theory, is scant, as the disclosure of CSR activities has not been a prevailing practice [23–26]. Demonstrating the practices of a country that is somewhat different from Western culture and a market economy, but making dynamic efforts for a market economy and banking financial culture and processed banking CSR practices, can enrich CSR knowledge and can encourage rapprochement with Pakistan's financial sector.

Literature Review

Examining the relationship between CSR and companies' performances has been an emerging issue in recent times and has gained the attention of academicians, though the concept is not

new [42] and was coined in the 1920s, and has been an active area of research since the 1970s [9,43]. The creation of wealth and profits is considered as the primary goal of most companies, but more recently the mission of a firm also incorporates policies for social development besides profit-maximization [44]. Usually, organizations focus on certain business processes, like diversification, differentiation, and globalization; although the need for expansion in a firm's operations towards society is supported by recent developments in the field of strategic management. The wider concept of corporate social responsibility shows us corporate engagement in activities beyond profit-making [45,46]. Activities such as environmental protection, ethical trading and care for employees are among the top ranked. The organizations voluntarily participate in such initiatives that may make a significant contribution to solving social and environmental issues. CSR shows the commitment of the organization to work for the betterment of society through its business practices and organizational resources [47]. Some of the aspects to which CSR responds include advocating human rights, social reporting, ethical trading, socially responsible investing and the empowerment of individuals, communities and employees [48].

Stakeholder theory is a significant theory that explains the inclinations of an enterprise to report its CSR activities. The phrase "stakeholder theory" was coined by R. Edward Freeman in 1984 while outlining the objectives of companies, and he emphasized that the core objective of a corporation is to maintain equilibrium among various interest groups of stakeholders [49]. This theory focuses on groups within society that influence business operations and elaborate on how the firm should work in society. All who get affected by the behavior and activities of the business are conceived as stakeholders: staff, customers, distributors, suppliers, social activists, competitors, NGOs, media, legislators, scholars, inhabitants of the area where the firm operates, labor unions and governmental organizations. The theory primarily emphasizes two main issues: firstly, it deals with the company's core values, which are shared by stakeholders, and bringing them together. Secondly, it deals with

the issues related to the responsibilities of the managers towards all the parties affected by business operations. [50].

CSR is the corporate consequence of various social powers. The general public, unions and social groups grew discontented with the prevalent unscrupulous corporate patterns and businesses not being accountable. Jones [51] has claimed that companies bear great costs arising from their unethical behavior, breaches of trust and cooperation amongst the organization and its associated entities and individuals. Sethi [52] proclaims that firms are an integral portion of the community, such as other social institutes; their growth and survival are dependent on their respective societies. Society gives freedom to these organizations with the trust that they are contributing towards the needs of the public. CSR initiatives in corporations attempt to advance and increase social and environmental activities in such firms without larger governance consequences. It is concerned with how businesses include these public benefit matters in their basic business processes. Smith [53] maintains that including CSR in businesses is no longer an issue, but how to include it as a key focus area. Lee et al. [54] believe that corporations outline their duties founded on CSR motives, including social, economic and environmental duties, that are essential for becoming a good corporate citizen. Sheehy (p. 638, [9]) defined CSR as “a type of international private self-regulation”. Sheehy [9] contended that the implementation and adjudication of CSR relies upon the regulated parties, such as the participation of civil societies, NGOs and regulating authorities, along with industry members in developing CSR standards, rule-making and administrative functions. It must not be restricted to charity; rather, it should be considered as a strategic move to create prospects and innovations, resulting in competitive superiority to other businesses in the industry [55].

Polychronidou et al. [56] have stated that with the popularity of CSR, banks also started considering CSR initiatives to endorse athletic, educational, cultural and environmental plans. They also started providing funding to charitable bodies. Environmental performance indicators (EPI) were launched by 11 financial institutions belonging to Switzerland and Germany, based on

environmental evaluation standard ISO-14031, known as EPI-Finance 2000. The indicators assess four classifications of financial services and commercial banking: project financing, investment banking, asset management and the integration of environmental matters in main business processes [57].

Ullah [58] is of the view that given environment directions are followed strictly by the banking sector in few developed countries. Deviation from principles and guidelines by banks can lead to heavy fines and penalties. In the 1980s, as a result of the US Comprehensive Environmental Response Compensation and Liabilities Act (CERCLA), banks faced huge losses in the shape of payments towards remediation costs for the environmental pollution of their clients. Rugimbana et al. [59] investigated consumer perception and CSR in the retail banking sector in Australia. The authors identified two categories of customers, based on their perceptions: one type was purely interested in institutions having strategies based on a customer's financial benefits, while the other category preferred those institutions that are effective in their CSR obligations. Simpson and Koher [60] are of the view that banks with higher CSR performance rates get better returns on assets (ROA) than banks with a lower social performance rate. Their research also reveals that, in comparison with banks with lower CSR rates, the socially responsible banks have a lower risk of loan losses. Deckop et al. [61] found out in their CSR and financial performance (FP) research that CSR in banks helps in the risk reduction of commercial enterprises and improves the FP. Bihari and Pradhan [62] examined the CSR impacts on Indian banks and proved that CSR activity reporting improves corporate image and goodwill, inducing a positive impact on their overall performance.

Park et al. [63] observed that the CSR practices undertaken resulted in the positive performance of a firm, however, such activities initiated by overconfident managers have negative impacts on a firm's long-term performance. Sukcharoensin [64] and Arshad et al. [65] studied the relationship between CSR practices and firms' values (Tobin's Q) in Thai and Pakistani firms, respectively. They held that there is no association between CSR and firms' values, or their economic performance.

Good governance, social accountability and goodness and environmental concerns, along with the implication of ethics in individual and organizational behavior, are among the core values of Islam [66]. Islamic banking has gained the attention of scholars in recent years, after the financial crisis, and has mainly criticized the factors of moral deficiency and greediness of the financiers and bankers [67]. Platonova et al. [2] asserted that CSR activities carried out in the Gulf Cooperation Council (GCC) region by Islamic banks shows a promising relationship with their financial performance.

Bagh et al. [22] examined the causal relationship of CSR and the FP of the banking sector in Pakistan by taking a sample of 30 banks. They concluded that the ROA, ROE and earnings per share (EPS) are positively associated with CSR. Their observation shows that CSR is an important element for growth and performance enhancement tools in the Pakistani banking industry. Banks in Pakistan are motivated to incorporate CSR in their strategies, mission statements and objectives. Their involvement in sports sponsorships, talent grooming, health and education issues and their contribution towards environmental safety show their commitment to CSR [68]. Sayed et al. [69] considered the impact of CSR indicators, i.e., workers' welfare funds and donations, on financial performance variables (ROA, EPS, Tobin's Q and price to earnings ratio) in the financial sector of Pakistan. They found that there is no association between CSR and financial variables, except ROE and Tobin's Q, which are negatively associated with CSR. Sharif and Rashid [70] probed the effects of business management on CSR disclosure in Pakistani commercial banks. The executive and non-executive directors were examined as components of corporate governance in the research. The annual reports of the banks from 2005 to 2010 were studied through content analysis to calculate the CSR activity level of the banks. A multiple regression model was utilized for empirical analysis. The study's conclusions show that the non-executive directors have a positive and significant impact on CSR reporting. Moreover, they noted that the Pakistani banks' performances, related to CSR practices, is impressive and high. Malik and Nadeem [21] assessed the CSR impact on the FP of the Pakistani services

industry. Data from eight banks were studied through a regression model covering the 2008–2011 period. The study explains that the banking sector of Pakistan is way behind in CSR initiatives. A positive but insignificant relationship between profitability indicators, i.e., earnings per share (EPS), ROE, ROA and net profit was found.

Conceptual Framework

To examine the relationship between CSR practices, disclosure and the financial performance of the listed Pakistani banks in the study at hand, the financial performance of the banks was assessed by four indicators: return on assets (ROA), return on equity (ROE), earnings per share (EPS) and Tobin's Q. The firm's size, age, capital ratio and overhead expenses of the banks under study were the control variables. Figure 1 indicates the research framework to measure the CSR disclosure and financial performance relationship of the banks under discussion. Studying the relevant literature [1,12,16,70-84], we determined nine categories and the number of items in each category (Appendix A) as follows: Shareholder:6 items, Employee: 12 items, Manager/Governance: 5 items, Customer: 8 items, Supplier: 6 items, Competitor: 3 items, Community and Society: 12 items, Environment: 13 items and CSR Management: 6 items.

Figure 1: Conceptual model of the study. Source: developed by the authors.

Material and Methods

In this study, we utilized the financial performance of selected banks of Pakistan as a dependent variable. The literature of CSR and financial performance relationships shows that accounting-based measures such as ROA, ROE, return on sales (ROS) and net profit margin, and market-based measures like Tobin's Q and stock returns, were used as indicators for financial performance. Some of the authors have considered that accounting-based indicators are more effective indicators for the CSR–FP association [85]. However, some of the researchers also claim that market-based indicators show positive results with CSR [86]. The literature shows that most of the studies have utilized both of the performance indicators for the evaluation of a firm's FP [80,87–89]. Hoskisson et al. [90] have suggested that the combination of both market-based and accounting-based indicators should be employed in future research regarding CSR–FP relationships.

In light of the findings of previous studies, it can be stated that these four profitability ratios were the most practical measures to analyze the association between CSR disclosure and the financial performance of firms. In this study, both accounting-based and market-based indicators have been used to measure the financial performance of the selected banks. For the accounting-based performance, ROA, ROE and EPS were used; while for the market-based performance Tobin's Q ratios were employed. These ratios were measured from the SBP's financial reports and the annual reports of the selected banks.

Content Analysis

Content analysis is a broadly used method for measuring CSR disclosure [76,78,81,82]. In the content analysis, the researchers analyze the secondary data sources that may include annual reports, other CSR publications and the official websites of the firms regarding CSR activities. The information gathered through this method is then converted to a quantitative form, to develop a CSR disclosure index and to measure the extent of the CSR disclosure of the firm. This method mainly focuses on the

quantity of the CSR disclosure rather than the quality, which is the main disadvantage of this method [91]. The index approach of content analysis was adopted to codify the data and measure the CSR scores to construct a CSR disclosure index. The dichotomous and unweighted disclosure index method was used [92–94]. According to this technique, if a bank discloses the information related to CSR items in its annual report or on their website, it is assigned a score of “1” and if the related information is found missing, then the score is “0” [70,95].

To sum the final CSR index (CSRI), the unweighted indexes were calculated as follows:

$$CSRI_j = \frac{\sum_i^n x_{ij}}{n_j} \quad (1)$$

Where

$$CSRI_j =$$

Corporate social responsibility index of j^{th} bank,

n_j = Total number of CSR items for j^{th} bank, $n = 71$,

$x_{ij} = 1$ if “ i^{th} ” item is disclosed by “ j^{th} ” bank’s annual

reports, and 0 if the item is not disclosed in annual reports/website.

Regression Analysis

To examine the association between CSR and the financial performance of the selected sample of banks, and to test the developed hypothesis empirically, this study used three groups of panel data models. These models consisted of a constant coefficient model (pooled OLS), a random effects model (GLS) and a fixed effects model (LSDV).

A panel data model is a data set in which the behavior of the variables is observed over a given period. Baum and Christopher [96] and Gujarati [95] have argued that the panel data model is more effective for detecting and measuring those effects that cannot be observed through a cross-sectional OLS. They also asserted that variability, a high degree of freedom and less

collinearity are the advantages of panel data over cross-sectional data.

The basic econometric model was employed in this study to analyze the relationship between CSR disclosure and financial performance, as below:

$$Y(FP_{jt}) = \beta_0 + \beta_1 X(CSRI_{jt}) + \beta_2 X(Con. var_{jt}) + \varepsilon_{jt} \quad (2)$$

Where

FP_{jt} = Financial performance of bank j in time t , i.e.,

financial performance is proxied by ROE_{jt} , ROA_{jt} , EPS_{jt} and $TOBIN'S Q_{jt}$ and four separate models are estimated accordingly,

β_0 = Model intercept,

β_1, β_2 = Regression coefficients

$CSRI_{jt}$ = Corporate social responsibility disclosure index

of bank j in time t ,

$Con. var_{jt}$ = Control variables for bank j in time period t ,

ε_{jt} = Statistical error term.

Sample and Data Selection

Pakistan has 29 scheduled banks. For the purpose of this study, we have chosen a sample of 20 banks (Appendix B), listed on the Pakistan Stock Exchange in 2018. This sample consisted of conventional, state-owned and Islamic banks. In order to collect data, this study examined annual reports of the desired banks from 2008 to 2018. The reason for choosing this particular duration was the 2008 economic crises that had affected Pakistan's economy, together with other factors like terrorism, that accounted for the most difficult times in Pakistan's economy. The worsening of both the external and domestic imbalances began in 2008's first quarter. The inflation ratio hit

25%, compared to 7% in 2007, and aggregate market capitalization minimized to less than 20% of the GDP in 2008 [97]. Pakistan's banking sector was the only sector that survived the global crises of 2007–2012. Nevertheless, as there was a decrease of 10% average assets of Pakistan's banking industry, compared to 18.8% in 2007 and 8.8% in 2008. However, an increase of 7.8% average assets was recorded in 2012, indicating a better performance of Pakistan's banking sector during the crisis years [98].

Results and Discussion

The results of the content analysis in Appendix C present that Muslim Commercial Bank (MCB), with the maximum CSR disclosure practices, is ranked first. MCB's overall disclosure average score is 0.726. The bank's lowest CSR disclosure score (0.5915) is in 2008, while the highest score (0.7465) is in 2017, and was reduced in 2018 to 0.7324. During the 2008 to 2014 period, MCB did not reveal data concerning "flexible policies for shareholders" and "facilities to employees' families". The MCB's disclosure score of information related to "socially responsible investment", "socially responsible savings", "sustainable financing", "ISO 14000/14001 certificate", "consideration of the World Bank and OECD environmental guidelines" is zero, like all the banks included in the sample. MCB's highest average score was noticed in the disclosure of the Manager/Governance section and the lowest score was supplier related. The Standard Chartered Bank (SCB) is the next highest in the average CSR disclosure score, with 0.7145 during the same time. The SCB's lowest disclosure of information was 0.662 in 2008 and the highest (0.7887) was in 2017. SCB's improved disclosure performance was in the CSR Management disclosure category, managing to reveal 95.45% average information in the category. The bank's performance in the environmental aspect of CSR was not impressive. The Allied Bank Limited (ABL) was third, with an average score of 0.7106 in the total CSR disclosure index. ABL's lowest CSR disclosure score (0.6338) was in 2010 and 2011. The primary reason for this low score was very insufficient information revealed about the environment and suppliers during 2010 and 2011. During the

selected period, ABL's highest information disclosure was observed in the CSR shareholder category, which was 87.87%, while the bank's performance related to revealing supplier information is poor.

Appendix C shows that the Samba Bank scored the minimum among the banks with the lowest CSR disclosure level. The bank failed to reveal information about their initiatives for employees' welfare, community and environmental concerns. The Samba Bank's average CSR disclosure score was 0.5122, and was placed last in the CSR ranking. The lowest CSR disclosure score (0.4507) of the Samba Bank was in 2009 and the highest (0.662) in 2018. The Samba Bank's average scores for Environment, Community and Employee disclosure is 0.2657, 0.4015 and 0.5379, respectively, for the selected time. The Summit Bank and the Soneri Bank rank 18th and 19th, respectively, with average CSR disclosure scores of 0.5493 and 0.6018, respectively. The lowest score (0.478) of both the banks was in 2008. Both banks have shown progress, as in 2017 the Summit Bank and Soneri Bank scored 0.6338 and 0.7183, respectively. The findings of the content analysis indicate that the biggest CSR disclosure score improvement from 2008 to 2018 was recorded for MCB, by 22.53%, followed by Samba Bank, Bank of Khyber and Bank Islami by 19.72%, 19.72% and 18.31%, respectively. Furthermore, both Islamic banks in the sample (Meezan Bank and Bank Islami) showed improvement in CSR disclosure by 21% and 19%, respectively.

Table 1 indicates the ranking of the banks based on their average disclosure of CSR information during the time of the study.

From the results of the regression in Table 2, we can summarize the random effects model as the most acceptable model. However, the p -value (F) for both the random effects model and the pooled OLS is statistically significant. The results indicate that CSRI is positively and significantly associated with the ROE at a 5% and 1% level in both random effects and pooled OLS models, respectively. Similarly, the findings of the random effects model illustrate that the capital ratio has a significant positive relationship with the ROE at a 5% level, while the

coefficients of age are negative and significantly related to the ROE at a 5% level. The negative impact of age on profitability might be due to the convex nature of the relationship, as firms experience declines in financial performance with age but become profitable at an old age [99]. The sample of the present study also consists of banks with ages ranging between 5 and 20 years.

Table 1: Ranking based on overall CSR disclosure score 2008–2018.

Banks	Average CSR Indices (%)	Ranking
Muslim Commercial Bank	72.6	1
Standard Chartered Bank	71.45	2
Allied Bank Limited	71.06	3
National Bank of Pakistan	70.55	4
Habib Bank Limited	68.25	5
United Bank Limited	67.86	6
Bank Alhabib	67.22	7
Meezan Bank	66.84	8
Bank Alfalah	65.56	9
Habib Metropolitan Bank	65.43	10
Bank Islami	64.28	11
JS Bank	64.02	12
Askari Bank	63.89	13
Faysal Bank	63.12	14
Bank of Khyber	61.33	15
Bank of Punjab	61.08	16
Silk Bank	60.31	17
Soneri Bank	60.18	18
Summit Bank	54.93	19
Samba Bank	51.22	20

Source: Authors' own ranking based on content analysis.

The pooled OLS results determine that the ROE is positively and significantly associated with capital ratio at the 1% level, while the relationship between the ROE and age is negative and significant at the 5% level.

Table 2: Regression results: return on equity as a dependent variable.

Independent Variables	Dependent Variable Return on Equity		
	Random Effect	Pooled OLS	Fixed Effect
CSRI	1.727** (0.038)	1.760 *** (0.00)	1.581 (0.183)
Size	0.029(0.279)	0.035 (0.203)	−0.016 (0.728)
Age	−0.001** (0.062)	−0.002**(0.016)	−0.001(0.984)
Capital Ratio	0.015** (0.029)	0.017*** (0.000)	0.094(0.175)
Overhead Expenses	0.204 (0.295)	0.021(0.195)	−0.014(0.537)
Constant	3.508*** (0.000)	3.364*** (0.00)	4.479*** (0.003)
Observations	220	220	220
Year Dummy	Yes	Yes	Yes
R-square	0.238	0.183	0.219
P-value (F)	(0.0000)	(0.0000)	(0.743)
Hausman Chi (χ^2) Prob			2.62 (0.9998)
Breusch–Pagan LM Chi (χ^2) Prob		1.15 (0.1042)	
Breusch–Pagan Het test Chi (χ^2) Prob Mean VIF	635.58 (0.0000) 2.272		

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 2 explains the Breusch–Pagan LM test. The chi (χ^2) value is 1.15 and the p -value is 0.1042, showing that the variances across variables were significant and not zero. Therefore, a null hypothesis is overruled, signifying the random effects model as a suitable model, compared to the pooled OLS. A Hausman test has been utilized to pick the appropriate model between fixed effects and random effects models. The results in Table 2 indicate no correlation between regressors and individual effects in the model ($\chi(\chi^2) = 2.62$, p -value= 0.9998), which is insignificant. Therefore, the null hypothesis is accepted, and the random effects model is better than the fixed effects model. The value of the Breusch–Pagan/Cook–Weisberg test suggests the presence of heteroscedasticity. Therefore, robust standard errors were employed in all models. The use of robust standard errors

in the presence of heteroscedasticity was recommended by some influential studies [100,101].

The regression results in Table 3 present a significant association between the ROA and CSRI disclosure. The p -value (F) of all the models is significant (p -value (F) = 0.000). Whereas the results of the Hausman test indicate that the fixed effects model is the most desirable model. The results of the fixed effects model determine that the relationship between CSRI and the ROA is positive and statistically significant at the 5% level. The association of the ROA with the size and the overhead expenses of the bank is negative and significant at the 5% and 10% levels, respectively.

The results of the pooled OLS and random effects models also present a positive and significant relationship between CSRI and the ROA at a 1% level. The coefficients of the capital ratios are positive and significantly linked with the ROA in both the pooled OLS and random effects models.

Table 3: Regression results: return on assets as a dependent variable.

Independent Variables	Dependent Variable Return on Assets		
	Fixed Effect	Pooled OLS	Random Effect
CSRI	7.323** (0.045)	10.704*** (0.000)	10.307*** (0.001)
Size	-0.811** (0.052)	0.214** (0.029)	0.124 (0.384)
Age	0.162 (0.357)	0.001 (0.670)	0.003 (0.317)
Capital Ratio	-0.010 (0.760)	0.071** (0.003)	0.050** (0.030)
Overhead Expenses	-0.288* (0.107)	-0.215* (0.083)	-0.203 (0.248)
Constant	6.789 (0.362)	-10.110*** (0.000)	-8.081*** (0.009)
Observations	220	220	220
Year Dummy	Yes	Yes	Yes
R-square	0.19	0.53	0.53
P-value (F)	(0.0000)	(0.0000)	(0.0000)
Hausman Chi (χ^2) Prob			46.99 (0.0000)
Breusch-Pagan LM Chi (χ^2) Prob		7.20 (0.0036)	

Breusch-Pagan Het test Chi (x^2) Prob Mean VIF	95.65 (0.0000) 2.272		
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*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4: Regression results: earning per share as a dependent variable.

Independent Variables	Dependent Variable Earnings per Share		
	Fixed Effect	Pooled OLS	Random Effect
CSRI	7.741 (0.303)	22.752*** (0.005)	14.104*(0.068)
Size	-0.967 (0.346)	5.275*** (0.000)	1.394 (0.147)
Age	-0.455 (0.314)	-0.029** (0.056)	0.048 (0.466)
Capital Ratio	0.061 (0.351)	0.555*** (0.000)	0.134*(0.097)
Overhead Expenses	0.208 (0.541)	0.239 (0.647)	0.460 (0.343)
Constant	30.911 (0.129)	-113.634*** (0.000)	-34.784** (0.018)
Observations	220	220	220
Year Dummy	Yes	Yes	Yes
R-square	0.19	0.60	0.43
P-value (F)	(0.0000)	(0.0000)	(0.0000)
Hausman chi(x^2) Prob			39.93 (0.0005)
Breusch-Pagan LM Chi(x^2) Prob		259.44 (0.0000)	
Breusch- Pagan Het test Chi (x^2) Prob Mean VIF	46.00 (0.0000) 2.272		

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4 elaborates on the findings of the regression analysis of the relation between the EPS and CSRI. The results show that all the models are statistically significant (p -value (F) = 0.000) at a 1 % level. The Hausman test confirmed that the fixed effects

model is appropriate, presenting a positive and insignificant relationship between the EPS and CSRI. This shows that there is no impact of CSR disclosure practices on the earnings per share of the selected banks. However, the results of the pooled OLS and random effects models indicate a significant positive linkage between the EPS and CSRI at 1% and 10%, respectively.

Table 5: Regression results: Tobin’s Q as a dependent variable.

Independent Variables	Dependent Variable Tobin’sQ		
	Random Effect	Pooled OLS	Fixed Effect
CSRI	−0.887 (0.407)	−0.546 (0.359)	−1.038 (0.370)
Size	0.067 (0.477)	0.092 ** (0.055)	−0.004 (0.982)
Age	0.004 (0.173)	0.003 ** (0.040)	0.304 *** (0.000)
Capital Ratio	0.040 *** (0.000)	0.041 *** (0.000)	0.037 ** (0.003)
Overhead Expenses	0.026 (0.556)	0.036 (0.216)	0.011 (0.859)
Constant	−0.510 (0.791)	−1.178 (0.162)	−8.827 *** (0.001)
Observations	220	220	220
Year Dummy	Yes	Yes	Yes
R-square	0.38	0.3795	0.16
P-value (F)	(0.0000)	(0.0000)	(0.0000)
Hausman chi (x ²) Prob			5.35 (0.9804)
Breusch–Pagan LM Chi(x ²) Prob		146.39 (0.0000)	
Breusch–Pagan Het test Chi (x ²) Prob Mean VIF	44.84 (0.0000) 2.272		

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 5 indicates that all the models are statistically significant, as the p -value (F) for them is 0.000. The findings of the Breusch–Pagan LM and Hausman test preferred the random effects model over the pooled OLS and the fixed effects model, respectively. The findings of the regression show that there is a negative and insignificant relationship between the TBQ and

CSRI. This indicates that the CSR disclosure of the selected banks does not have any effect on the TBQ of these banks. However, the TBQ and capital ratios of the banks are positively and significantly associated with one another.

The present study is in line with the research of Deegan [31], who stressed that the stakeholders' awareness and expectations influence the CSR activity level and its disclosure. The results of the regression analysis show a significant and positive relation between CSR disclosure and economic performance measured with the ROE and the ROA. The results show that an improvement in a bank's CSR activities and their disclosure helps in improving the bank's economic performance, which is endorsed by Santhirasgar et al. [102], Maqbool and Zameer [80], Djalilov et al. [103] and Fayad et al. [104]. However, the relation between CSR and the EPS is positive but insignificant. These results support the findings of Batra and Bahari [105] and Islam et al. [106]. Correspondingly, the CSR and TBQ association is negative and insignificant—consistent with Sukcharoesin [64] and Arshad et al. [65]. Some likely causes of this insignificant relationship between CSR disclosure and economic performance indicators (the EPS and TBQ) may be a lack of awareness, a misunderstanding of the definition of CSR and the range of CSR disclosure by the studied banks. Other reasons may include the global crises and war against terrorism in Pakistan from 2001 to the present day, resulting in a drastic fall in GDP from 4.8 in 2007 to 1.6 in 2010 [107].

Conclusions

This study is a modest attempt to look into the extent and nature of the CSR disclosure of Pakistani listed banks and investigates its influence on the financial performance of these banks during the period 2008–2018. The findings of this study reveal an increase in overall CSR disclosure of 14.58% during the studied period, raised from 56.48% to 71.06%. In other words, the present CSR disclosure in the banking sector of Pakistan is moderate, in need of improvement and showing signs of progress. The results of the study also suggest that the participation of the banking sector in CSR practices and their

appropriate disclosure benefits the improvement of their accounting-based economic performance [70]. However, CSR disclosure does not affect the market-based financial performance of the listed banks that may have suffered through the uncertain economic situations of Pakistan [65]. This study contributes to the existing literature on CSR, its disclosure and extent in the context of a developing country, Pakistan, in many ways: firstly, this study looks at the CSR practices' impacts and their disclosure on the economic performance indicators of the Pakistani banks. The previous studies' investigations of the CSR disclosure and economic performance relationship in financial organizations are insufficient, and the existing few report mixed results. Therefore, this study is an attempt to fill the gap in the literature. Secondly, this study offers insight into the CSR disclosure initiatives in Pakistan's context. The commercial banks are less in concurrence when revealing the supplies- and environment-related CSR information. This indicates that a revision of the CSR guidelines from the government of Pakistan is needed. Moreover, offering incentives to the banks might improve the CSR practices and their disclosure. Finally, this study has developed a CSR index in accordance with stakeholder theory, thereby helping the stakeholders and banks to comprehend the extent and degree of CSR and its disclosure in Pakistan. The current study is limited to twenty listed commercial banks in Pakistan; the scope of research can be broadened by future researchers. This effort can also be explored by comparing the impact of CSR disclosure practices on the financial performance of conventional banks with those being practiced by Islamic banks, operating in the South Asian Association for Regional Cooperation (SAARC) region.

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Appendix A

Table A1: List of CSR items of each dimension of CSR.

Shareholder	Employee
Items	Items
1. Investor relation management	1. Gender diversity
2. Common forum for dialogue	2. Employee education and training
3. Flexible policies for shareholders and investors	3. Employee benefits
4. Appreciating shareholders	4. Employee safety and hygiene
5. Information disclosure for shareholders	5. Equal opportunity
6. Bonus interest and long term development	6. Employee welfare and health
	7. Minorities (discrimination policy)
	8. Employee motivation, rewards and satisfaction
	9. Number of employees
	10. Female workers (discrimination policy)
	11. Facilities to family (health and education)
	12. Feedback
Manager	Customer
Items	Items
1. Board of directors (names, qualification and position)	1. Marketing practices (responsible, ethical)
2. Independent directors	2. Customer relation management
3. Board effectiveness (governance structure)	3. Customer satisfaction
4. Relation between all stakeholders	4. Customer awareness
5. Management/staff	5. Socially responsible investment
	6. Socially responsible saving
	7. Micro credits/micro financing
	8. Funding initiatives to NGOs
Supplier	Competitor
Items	Items
1. Equal opportunity to suppliers	2. Relationship with

	competitors
3. Provision of info to suppliers	4. Collaboration with competitors
5. Feedback system/complaint mgt system	6. Fair selling practice (no negative advertisement)
7. Fair negotiation with supplier	8.
9. Long-term relationship with suppliers	10.
11. Support, caring, protection and advances	12.
13. Community and Society	14. Environment
15. Items	16. Items
17. Charitable initiatives/zakat	18. Environment concern/initiatives
19. Health and education	20. ISO 14000/14001
21. Internships/scholarships	22. Environmental policy/guidelines
23. Employment opportunities	24. Pollution control
25. Eradication of poverty	26. Awards for environmental protection
27. Sponsorship (sports and culture)	28. Recycling/reuse of waste
29. Aid to natural disaster affectees	30. Investment in energy project
31. Community support program	32. Planting and greening
33. Aid to war and terrorism affectees	34. Past and current operating cost of eco-friendly products
35. Human rights/no child labour	36. Agriculture support programs
37. Sustainable financing	38. World Bank guidelines (envir)
39. Disabled person	40. Taking into account environmental risk
41.	42. OECD Guidelines
43. CSR Management	44.
45. Items	46.
47. Function dedicated to CSR issues	48.
49. Code of conducts/ethic	50.
51. CSR report/sustainability report	52.
53. Anti-corruption/anti-bribery	54.
55. Governance policy	56.
57. Transparency (internal, external audit)	58.

Source: Created by the authors based on the literature studied [1,12,16,70–84].

Appendix B

Table A2: List of banks listed on the Pakistan Stock Exchange.

	Public Sector
S.No	Name of the bank
1	National Bank of Pakistan
2	The Bank of Punjab
3	Bank of Khyber
	Conventional Commercial Banks
4	Askari Bank
5	Allied Bank Limited
6	MCB Bank Limited
7	Bank Alfalah
8	Bank Al Habib
9	Faysal Bank
10	HBL Pakistan
11	JS Bank
12	Samba Bank Limited
13	Silk bank Limited
14	Standard Chartered Pakistan
15	Soneri Bank
16	Summit Bank
17	United Bank Limited
18	Habib Metropolitan Bank
	Islamic Banks
19	Meezan Bank Limited
20	Bank Islami Pakistan Limited

Source: Pakistan Stock Exchange 2018.

Appendix C

Table A3: CSR disclosure index (score) of listed commercial banks 2018–2018 (by year).

Year													
Banks	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	AvgCSR Disclosure	Ranking
MCB	0.5634	0.6479	0.7183	0.7324	0.7183	0.7465	0.7606	0.7324	0.7887	0.7887	0.7887	0.726	1
SCB	0.662	0.6901	0.7183	0.6761	0.6761	0.6901	0.7042	0.7183	0.7606	0.7887	0.7746	0.7145	2
Allied Bank	0.6479	0.6479	0.6338	0.6338	0.7183	0.6901	0.7606	0.7465	0.7606	0.7887	0.7887	0.7106	3
NBP	0.662	0.6901	0.662	0.6761	0.7042	0.6901	0.7042	0.7183	0.7324	0.7606	0.7606	0.7055	4
Habib Bank	0.5915	0.6197	0.662	0.6761	0.6901	0.7042	0.7042	0.6479	0.7324	0.7465	0.7324	0.6825	5
United Bank	0.6056	0.6338	0.662	0.662	0.6901	0.662	0.7324	0.7042	0.6901	0.7324	0.6901	0.6786	6
Bank Alhabib	0.5775	0.5915	0.6761	0.662	0.6479	0.662	0.6901	0.7042	0.7183	0.7465	0.7183	0.6722	7
Meezan Bank	0.5775	0.6056	0.6197	0.6056	0.6901	0.6761	0.6901	0.6901	0.7042	0.7465	0.7465	0.6684	8
Bank Alfalah	0.5915	0.5775	0.6197	0.6338	0.6197	0.6761	0.6901	0.6901	0.7042	0.7042	0.7042	0.6556	9
Habib Metro	0.6197	0.6197	0.662	0.6338	0.662	0.662	0.662	0.662	0.662	0.6761	0.6761	0.6543	10
Bank Islami	0.5493	0.5493	0.6056	0.6197	0.662	0.662	0.662	0.662	0.6761	0.6901	0.7324	0.6428	11
JS Bank	0.5634	0.507	0.6056	0.5915	0.6056	0.662	0.6761	0.6761	0.7042	0.7465	0.7042	0.6402	12
Askari Bank	0.5915	0.5915	0.6338	0.6056	0.6338	0.6338	0.662	0.662	0.6761	0.662	0.6761	0.6389	13
Faysal Bank	0.5634	0.5915	0.5915	0.6056	0.6197	0.6197	0.6479	0.6338	0.6479	0.7042	0.7183	0.6312	14
BOK	0.5211	0.5211	0.5352	0.5915	0.5915	0.5915	0.6479	0.6338	0.6761	0.7183	0.7183	0.6133	15
BOP	0.493	0.493	0.507	0.5211	0.5634	0.6338	0.6901	0.7183	0.7183	0.7183	0.662	0.6108	16
Silk Bank	0.493	0.507	0.5634	0.5775	0.6197	0.6338	0.6479	0.6338	0.6479	0.6479	0.662	0.6031	17
Soneri Bank	0.4789	0.4789	0.493	0.5352	0.5775	0.6197	0.6761	0.6761	0.7042	0.7183	0.662	0.6018	18
Summit Bank	0.4789	0.4789	0.4789	0.493	0.5352	0.5493	0.5775	0.5634	0.6197	0.6338	0.6338	0.5493	19
Samba Bank	0.4648	0.4507	0.4789	0.4648	0.4789	0.493	0.507	0.507	0.5211	0.6056	0.662	0.5122	20

Source: Created by the authors based on the content analysis of the annual reports/website of listed commercial banks in Pakistan.