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The Relationship between Corporate Social Responsibility (CSR) and Financial Performance: Evidence from Pakistani Banks

Sahir Abdullah[1], Hammad Zafar[2], Syeda Sabahat[3]

[1]*Karachi University Business School, University of Karachi, Pakistan, Email: sahirabdullah4@gmail.com*
[2]*Lecturer, Karachi University Business School, University of Karachi, Pakistan, Email: hammad.zafar@uok.edu.pk*
[3]*Lecturer, Sir Syed University of Engineering and Technology, Karachi, Pakistan, Email: syedasabahat1995@gmail.com*

Abstract

This study investigates the impact of Corporate Social Responsibility (CSR) expenditure on the financial performance of selected commercial banks operating in Pakistan. The banking sector was selected due to its significant contribution to economic development, financial intermediation, stakeholder engagement, and the preservation of public trust. The analysis is based on panel data obtained from nine Pakistani banks covering the period from 2013 to 2023. Financial performance is assessed using two accounting-based indicators, namely Return on Equity (ROE) and Return on Assets (ROA), while CSR engagement is measured by the natural logarithm of charitable donations and contributions. In addition, several bank-specific factors, including bank size, capitalization, liquidity, non-markup income ratio, and net interest margin, are incorporated as control variables. To examine the relationship between the variables, the study employs descriptive statistics, correlation analysis, and panel least squares estimation with cross-sectional fixed effects. The empirical results demonstrate that CSR expenditure has a positive and statistically significant effect on ROE, suggesting that investments in CSR activities may improve shareholder returns by strengthening corporate reputation, enhancing stakeholder confidence, and improving public perception. Conversely, although CSR expenditure exhibits a positive association with ROA, the relationship is not statistically significant, indicating that CSR spending does not have a direct and measurable impact on asset-based profitability during the sample period. Among the control variables, net interest margin is found to have a positive and statistically significant effect on financial performance, whereas liquidity is negatively and significantly associated with both ROE and ROA. The findings indicate that banking institutions should not consider spending on CSR as a financial strain, because it may raise the returns for the shareholders. But asset efficiency is little improved. This study extends the literature as it examines actual CSR spending, instead of CSR disclosure and provides new empirical proof from the Pakistani banking sector.

Keywords: Corporate Social Responsibility, CSR Expenditure, Return on Equity, Financial Performance, Return on Assets, Banking Sector, Pakistan.

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Introduction

Background of the Study

CSR is now an integral part of today's business practice. Organizations are now judged not just by the way they perform financially, but also on their capacity to contribute to the community and meet the expectations of diverse stakeholders. CSR involves voluntary efforts that a company makes to benefit society and include general community development, educational support, healthcare programs, charitable works, environmental protection and other social welfare programs. Carroll (1979) categorized CSR into four distinct components. These include Ethical, Legal, Economic, and Philanthropic responsibility. Businesses are supposed to be profitable, be competitive, but also meet their social duties.

The significance of CSR is also clearly seen in banking industry where the bank works mainly on the basis of trust and confidence of public. Banks play important roles, including collecting savings, making payments, offering loans to the businesses and persons, and helping to promote overall economic development. Therefore, banks have a responsibility to their shareholders, depositors, borrowers, employees, regulators and to society in general. This view is consistent with stakeholder theory (Freeman, 1984) which suggests that business enterprises should consider the interests of each of the stakeholders that influence or are influenced by the organization.

The banking industry in Pakistan plays a vital role in supporting and strengthening the country's financial system. SBP (State Bank of Pakistan) in its Financial Stability Review 2023 said the assets of the banking industry expanded by 29.5% to553,601 billion rupees. The attainment of 46.4 trillion before 2023’s end despite the macro-financial environment The report also pointed out that the Capital Adequacy Ratio was at 19.7 per cent, well above the minimum regulatory requirement. These indicators signify the strength and significance of the banking industry in the economy of Pakistan (State Bank of Pakistan [SBP], 2024).

Financial performance has consistently remained a major concern for bank management, investors, and policymakers. The SBP (State Bank of Pakistan) reported the banking industry's after-tax ROA has now risen to 1.5 percent in H1FY23, and the after-tax ROE now stands at 26.0 percent. Also, the after-tax profitability of the banking sector exceedingly doubled, increasing to PKR 284.5 billion in H1CY23, primarily attributable to the increase in net interest income (SBP, 2023). ROA and ROE are good indicators to assess the performance of banks as they reflect on how efficient banks use their assets and the returns they give to shareholders.

Academic studies have received much focus on the connection among financial performance and CSR. Divergent opinions exist regarding whether CSR initiatives increase a company's operating costs but might ultimately lower the profit margin in the short term or whether the socially responsible investments build customer confidence, improve corporate reputation, boost employee commitment, and cultivate investor confidence. The banking sector can see an opportunity for increased public trust and improved corporate image through CSR (Orlitzky et al. 2003). Wu and Shen (2013) demonstrated a favorable correlation between bank financial performance and CSR goals as the authors emphasized the value creation that stems from CSR and that is achieved when CSR is not a symbolic gesture but is a part of the business strategy. Similarly, Platonova et al. (2018) discovered that disclosure of CSR in Islamic banks within the GCC is favorably correlated with financial performance.

Additionally, in Pakistan the previous study by Szegedi et al., (2020) analyzed the disclosure of CSR and financial performance of banks for the time span of 2008-2018. And the outcome of their paper shows that CSR disclosure had a positive correlation with accounting-based performance metrics like ROE and ROA, and that CSR disclosure practices have improved. Based on these findings, it seems that this could prove beneficial.

The current study intends to investigate the connection between financial performance and CSR in a few Pakistani banks, building on the work of earlier academics. The natural logarithm of CSR expenditure (LNCSR) is used for measuring CSR and ROA and ROE are used for measuring financial performance. Additionally, other control variables were used like, bank size, capitalization, liquidity, non-markup income ratio, and net interest margin in the study. The samples were collected from banks of Pakistan and the time horizon for the analysis is from 2013-2023.

Problem Statement

Pakistani banks provide the money for CSR initiatives such charitable giving, community welfare, education, health care, and donations. The efforts could help to improve the bank's credibility with its clients and the community and its image in the public eye. But spending on CSR is also a financial expense, and whether it improves financial success must also be considered. The main issue is that it's not always evident how CSR affects bank performance. Short-term profitability may suffer if CSR is just viewed as an expense. However, CSR might ultimately boost financial performance by enhancing stakeholder relationships, customer loyalty, reputation and trust. However, the results of previous studies have been inconsistent. Previous studies suggest that the financial performance and CSR relationship may vary based on country, sector, type of bank or CSR concept has been mentioned in few other studies (Orlitzky et al., 2003; Platonova et al., 2018).

Although in Pakistan, there is research on CSR disclosure and bank performance, no study has focused on the relationship between bank performance and CSR spendings with the latest data. CSR spending in Pakistan's listed banks has been examined using LNCSR for the years 2008–2018 (Szegedi et al., 2020) and 2013–2023 (this study). Therefore, the issue being investigated is whether or not CSR spending has impact on the financial performance of particular Pakistani banks. The other bank parameters are kept fixed while the question is examined using ROE and ROA as performance metrics.

Gap Analysis

The association between CSR and financial performance were examined in academic research across different countries and industries. McWilliams and Siegel (2001) argued that CSR should be considered a strategic business variable because the effect of CSR greatly relies on the research model and the characteristics of the firm. Financial performance of banks and CSR (Corporate Social Responsibility) are positively correlated (Orlitzky et al., 2003). The drivers of CSR have been shown to influence bank performance (Wu & Shen, 2013). Further, numerous banking studies have looked at the link between financial performance and CSR from diverse perspectives. The financial performance of Islamic banks and CSR disclosure were found to be positively correlated in the GCC (Platonova et al., 2018). Shabir et al. (2024) analyzed 173 banks from 20 countries that were developing for the span of 2005–2018 and found that banks' financial performance was positively influenced by CSR spendings/activities based on the nature of bank along with institutional setting.

Szegedi et al. (2020) conducted a study and indicated that CSR disclosure positively influenced the accounting-based financial performance of Pakistani Banks, i.e., ROA and ROE. However, there is a vast majority of research on CSR reporting, CSR disclosure scores and/or CSR in general available. Study quantifying CSR expenditure in the natural logarithm of CSR spending is limited, especially in the case of Pakistan. This study is among the first of its kind as it has concentrated on CSR spending instead of CSR disclosure. It studies the effect of LNCSR on the ROE and ROA of selected Pakistani banks from 2013-2023. Other control variables particularly important to banks such as size, capitalization, liquidity, non-markup income ratio and net interest margin are also included. Therefore, this research study is a contemporary effort to investigate a relationship between Pakistani banks' performance and their CSR expenditures.

Research Objectives

The study's specific research objectives are to address the following queries:

- To study the impact of CSR spending on ROE (Return on Equity) of selected banks of Pakistan.
- To identify the impact of CSR spending on ROA (Return on Assets) of selected banks of Pakistan.
- To explore the impact of bank size, capital, liquidity, non-markup income ratio and net interest margin on bank financial performance.
- To present current empirical data on the association among Pakistani banks' financial performance and CSR spending.

This study will also put light on the issue as to whether the CSR expenditure can be treated as a cost or a part of bank performance.

Research Questions

According to the literature examined, the study tackles the following research questions:

- Is there any relationship between Return on Equity of selected Pakistani banks and their CSR spending?
- What is the impact of CSR spending on the ROA(Return on Assets) for some of the Pakistani banks?
- Are variables specific to banks (like size, capitalization, liquidity, non-markup income ratio, net interest margin) related to bank financial performance?

Significance

This study is important because it advances our understanding of Pakistani banks' financial results and CSR spending. To determine its effect on social welfare and charitable causes, the cost of such spending on Pakistani banks must be experimentally examined. This analysis uses panel data from 2013 to 2023. Bank management can utilize the study to better understand whether or not CSR spending affects financial performance. However, managers may view CSR as a strategic endeavor that advances both financial and social welfare objectives if it results in an increase in ROE or ROA. Managers might think about examining the organization's CSR structure, reporting, and efficacy if the impact is minimal. Because CSR may affect the bank's sustainability prospects and reputation, the study is also pertinent to shareholders and investors. Investors may include CSR in their evaluation of the bank's performance, particularly if it improves public perception and confidence.

The study provides regulators and policymakers with evidence of responsible banking in Pakistan. Given the significance of financial stability and economic development in bank operations, it would be assumed that improved CSR practices will benefit societal welfare without necessarily impacting the bank's profitability. Finally, this work is important for scholarly research and can be added to Pakistan-specific CSR literature. It looks into two important accounting-based performance metrics (ROE, ROA) and takes actual CSR spending into account rather than just reporting it in the yearly report.

Review of Literature

Impact in CSR (Corporate Social Responsibility) on bank performance has already been comprehensively addressed in the published works. Carroll (1979) had suggested that there are some obligations placed on corporations beyond making money, and that there are legal, ethical and philanthropic responsibilities. CSR expenditure in the banking sector is associated with ethical and philanthropic aspects of these duties, including community development, environmental protection, providing healthcare initiatives, and educational support and charitable giving. The line of thinking behind this view is that financial institutions should be designed to serve investors and the community as whole.

The stakeholder approach put forward by Freeman (1984) also enhances the pertinence of CSR in banking sector. This theory suggests that the organization should take into account everyone involved in its activities and not only shareholders. These stakeholders are depositors, borrowers, bank employees, regulators, bank investors and the community for banks. Banking activities rely considerably on the confidence and trust of the public and CSR initiatives can be used to improve stakeholder relationships and enhance organizational outcomes.

Researchers exhibit studied the issue on linkage from financial success and corporate responsibility (CSR)from various perspectives. McWilliams and Siegel (2001) have argued that the idea of CSR should not just be seen as a form of social responsibility but also as an an organizational decision. They emphasized that the relation between financial performance and CSR is heavily affected by how CSR is measured and whether firm-specific factors are adequately controlled. This argument is especially important for the current research, where CSR is measured by the natural log of CSR expenditure (LNCSR) and variables that are likely to affect CSR are included as controls.

A more extensive meta-analysis was done. Orlitzky et al. (2003) validated the favorable association between financial performance and CSR through a total of 52 studies and 33,878 observations. Overall, they observed favorable association among correlation between Corporate Social Success as well as monetary success, particularly with respect of accounting metrics of financial performance. The outcomes of this research give theoretical underpinning as indices of financial success are utilized specifically ROA and ROE.

The discussion on CSR was continued by Wu & Shen (2013) who specifically targeted the banking sector. Their research looked at why companies engage in CSR activities and if they increase financial success. The authors proposed that CSR can be undertaken by banks primarily in altruistic, strategic or reputational motives. Their research showed that by aligning CSR with the business strategy and not a symbolic gesture, can have positively influence on the performance of the business. This is significant for the banking industry where trust, reputation and confidence among stakeholders play a crucial role in long-term success.

Additionally, Shen et al. (2016) examined if banks who are actively involved in CSR activities perform better than those with inactive CSR activities. To assess bank performance, the study adopted ROA and ROE as an important financial indicator and applied various estimation techniques, including matching and switching regression models. This indicated that CSR involvement in banks actively achieved superior financial performance compared to institutions with minimal or no CSR engagement. Similarly, the current study employs ROA and ROE as measures of financial performance, thereby contributing additional empirical evidence regarding the relationship between CSR expenditure and bank profitability.

In Islamic banking systems, the connection of responsible banking practices with financial performance was also studied. The research by Platonova et al. (2018) has been conducted regarding the performance of Islamic banks in the GCC countries from 2000 to 2014. The researchers then used data gathered from annual reports to conclude that financial performance and CSR disclosure were positively related. Based on their findings, socially responsible practices can boost stakeholder trust and increase the ethical reputation of financial institutions, which will eventually lead to better performance. The research results strengthen the idea of implementing CSR as an effective instrument in the banking industry.

In addition to CSR disclosure, researchers have also examined other sustainability efforts in banking. Nizam et al. (2019) investigated the performance impact of environmental and social sustainability practices on banks with different countries. The findings of the study demonstrated that the activities that are related to sustainability affects, depending on the type of bank, management quality, institutional characteristics and others. This evidence underscores the value of ethical banking and the idea that non-financial efforts can be helpful to an enterprise's performance.

In a Pakistani context, Szegedi et al. (2020) used content analysis and panel data methodology for their analysis, which included data from 2008 to 2018. The results showed improvement of CSR disclosure practice over the years and a positive relationship between the CSR activities and the ROA and ROE. The study is useful because it centers on the Pakistani banks and its innovation is that it utilizes the performance indicators that were utilized in the current research. The current research, on the contrary, measures CSR spending in reality, using LNCSR, and includes the more recent period of 2013–2023.

Recently, Shabir et al. (2024) studied the effect of CSR activities on bank performance in emerging economies. They examined 173 banks from 20 developing countries from 2005 to 2018. The researchers used Fixed Effects; GMM and 2SLS estimation methods were employed to address potential endogeneity issues. The results demonstrated that CSR contributes favorably to banking performance, particularly through improvements in organizational reputation, trust of stakeholders, institutional quality and responsible banking. The results of the study can be used as supporting evidence for the further discussion on the effect of CSR expenses within the banking system of Pakistan, which shares many attributes with other emerging economies.

Although CSR and sustainability have received substantial scholarly attention, many studies have also analyzed the key determinants of bank financial performance. Athanasoglou et al. (2008) took a sample of Greek Banks to study the profitability of banks at micro, industry, and macro levels for the period 1985-2001. The study employed GMM and found that attributes of banks are significant for profitability. The result shows the importance of including control variables in profitability models because financial performance may be affected by greater than only CSR activities. For this reason, the present study controls for bank size, capitalization, liquidity, non-markup ratio of income and the total interest margin.

Likewise, Petria et al. (2015) investigated the drivers of profitability in banking systems in the EU. The study identified the profitability drivers as bank-specific and external, and measured the results with ROA and ROE. The results demonstrated that management efficiency, liquidity risk, credit risk, diversification of businesses, competition in the market, and economic conditions affect profitability. The findings of these researches emphasize the influence of various internal and external factors on the performance of banks. For this reason, the variables of Capitalization, Liquidity, NMI, and NIM are incorporated as control variables in the current research framework.

Lee et al. (2014) research shows the association between revenue diversification and bank performance, highlighting the importance of revenue diversification. They found that income from non-interest operations, such as fees, commissions and trading and other banking services, can impact profitability. Mark-up income is the expanding revenue stream for hospitals this study examines, which can also impact both the ROA and ROE; for this reason, the non-markup income ratio (NMI) is also included as a control variable. The addition of NMI enables to separate out the effects of CSR spending from income differences between banks.

In this area, Menucci and Paolucci (2023) examined association between the dimensions of ESG and the financial performance of banking institutions in Italy. While the study has not been directed at direct CSR spending, it is still pertinent as it discussed responsible business practice in banking sector through financial performance indicators of ESG. The outcomes indicated that sustainability-related activities have the potential to affect profitability in several ways. The current study focuses on CSR spending, but the results do support the position that socially responsible activities can lead to better financial results.

Moreover, Liu et al. (2021) added financial technology as a moderator. Their findings suggest that the association between CSR and financial performance is not always consistent with respect to certain firm-specific factors and technological changes. Technology is a key component in today's banking landscape, contributing to the improvement of efficiency, customer support, and financial inclusion. Hence, CSR activities that are related to technology and stakeholder expectations can yield higher gains for financial institutions.

Barauskaite and Streimikiene (2021) conducted an extensive review, revealing the complexity of CSR–organizational performance relationship. The authors noted that past research has yielded inconsistent findings because of the diverse definitions, methods of measurement, industries and performance measures. There are inconsistencies in the results that indicate that the effect of CSR can depend on the context, industry context and measures of performance. For instance, if the stakeholders have a different perception and react to a bank's social programs differently, the contribution of CSR to ROE can vary from that of ROA.

Most of the international research has revealed that engagement in CSR activities strengthens a company's financial performance through its reputation, stakeholder trust, consumer loyalty and brand image. Banking studies also highlight the significance of CSR because banks rely on the public's trust and regulators. Moreover, some research indicates CSR could be an activity that costs, not profits.

Various alternative metrics have been adopted in the literature to examine banking performance ROA and ROE, as can be seen. Many variables such as size, capitalisation, liquidity, revenue diversification and net interest margin of banks have been found to impact bank profitability and have been included in previous research as bank-specific control factors. In this study we use this approach, LNCSR is the independent variable, ROE and ROA are the dependent variables and SIZ, CAP, LIQ, NMI and NIM are the control variables.

This report adds to the existing literature by utilizing actual CSR spending rather than CSR disclosure ratings. Moreover, it uses the latest panel data of some banks of Pakistan for the period 2013-2023. The study results prove that it was nine banks, eleven years and ninety-nine balanced panel observations. This will help the research to know whether the performance of Pakistani banks was significantly affected by CSR expenditures.

Conceptual Framework

The conceptual framework developed for this study depicts association of financial performance of selected commercial banks of Pakistan with the expenditure of Corporate Social Responsibility (CSR). The independent variable is CSR expenditure, which is measured by the natural log of CSR expenditure. These expenditures are mainly in the form of charitable giving and other financial donations/bank investments to serve the community and to support social development programs. It has been usually accepted that financial performance of banking institutions can be measured through Return on Equity (ROE) and Return on Assets (ROA). To capture the impact of CSR spending, some bank-specific factors are controlled for, including bank size, capitalization, liquidity, the ratio of non-markup income and net interest margin. LNCSR is, therefore, used as an independent variable, ROE and ROA as the dependent variables and SIZ, CAP, LIQ, NMI and NIM as control variables, in the empirical model.

The banking industry is a trust-based and credibility-based industry and therefore CSR is expected to impact on financial performance. The more banks invest in CSR projects, the more the public will trust them and gain influence in their business. By investing more in CSR projects, banks can bolster the trust of the public in banks and enhance their influence, and can also earn good reputation, thereby having a long-term benefit. Stakeholder theory argues that a business should take into account the interests of its various stakeholders—such as customers, employees, regulators, local communities, society and shareholders—in addition to shareholder interests. This view is especially true for the banking industry, as people and their deposits tend to favor companies that are both socially responsible and financially stable. Therefore, active participation in CSR activities can help to build stronger relations with stakeholders, which can ultimately lead to better financial results.

A link between Corporate Social Responsibility (CSR) and financial outcomes of the organizations has been consistently found in previous empirical research. According to Orlitzky et al. (2003) the meta-analysis they performed indicated that a higher score in corporate social performance, in general, is correlated with better financial performance, especially if the score is based on accounting measures to assess social and financial performance. Likewise, Wu and Shen (2013) maintained that the integration of CSR with the whole business strategy can increase competitiveness and promote sustainable growth in banking sector. Moreover, Szegedi et al. (2020) examined the relationship between CSR disclosure and accounting-based performance indicators for listed banks in Pakistan and noticed that there was a positive relationship between CSR disclosure and Return on Assets (ROA) and Return on Equity (ROE).

In the emerging economy context, Shabir et al. (2024) investigated the relationship between CSR activities and banking performance. They measured their financial performance based on ROA and ROE and found that CSR activities have a positive impact on banks' financial performance. Bank size, capitalization and liquidity were also used as control variables in the study. To be consistent with previous empirical research, the same set of control variables is used in the present study.

Return on Equity (ROE) is the first dependent variable used in this study. It is a financial ratio that indicates how profitable a bank is in earning money for its shareholders using its capital. Investments in CSR activities can enhance ROE through strengthening of the corporate reputation, customer loyalty and stakeholder confidence. These will bring further money flow into the institution, further deposits, greater profits and better returns for the shareholders. From the existing literature, it is expected that CSR spending will positively affect the ROE.

The second measure of financial performance used in this study is Return on Assets (ROA) that measures the efficiency of a banks' use of assets to earn profit. An increased investment in CSR programs could have a positive impact on ROA through better customer confidence, better brand reputation, and through the provision of business opportunities. However, CSR investment is an operating expense and the monetary rewards can be delayed. Hence, the effect that it has on ROA might not be seen immediately. However, from the stakeholder theory and the empirical studies on banking sector, it is presumed that the CSR expenditure will have a positive long term relationship with ROA.

Size of the bank is considered as a control variable and is measured by the natural log of total assets. Generally, large banks have more funds, larger customer base, stronger market footprint and greater power to invest in CSR efforts. Furthermore, larger banks are more likely to be more active in socially responsible activities due to the public exposure. Capitalisation ratio is the ratio of total equity and total assets. Banks that have higher capital levels tend to be more stable and resilient to any potential risks. Liquidity is the ratio of cash and cash equivalents to total assets and indicates a bank's ability to fulfill its short-term obligations. But having too much liquidity can lead to less profit, as the high liquidity of assets can yield relatively low returns.

The non-markup income ratio is also included as a control variable. This ratio is income earned in the bank from non-interest means such as service charges, commissions, foreign exchange transaction and other fee-based banking activities. An increase in the non-markup income ratio is indicative of diversification of income and could have a positive impact on bank profitability. The other control variable in the analysis is the net interest margin (NIM), which is the ratio of net interest income, which is the difference between interest income and interest expense, to total assets. Net interest margin is a measure of the profitability of the bank's basic lending activities and should have an impact on Return on Equity (ROE) and Return on Assets (ROA).

n light of the findings from previous studies, the following hypotheses have been formulated:

- H1: Corporate Social Responsibility spending has a positive impact on Return on Equity of selected Pakistani banks.
- H2: Corporate Social Responsibility expenditure has positive impact on Return on Asset of selected Pakistani banks.

Conceptual Framework Diagram

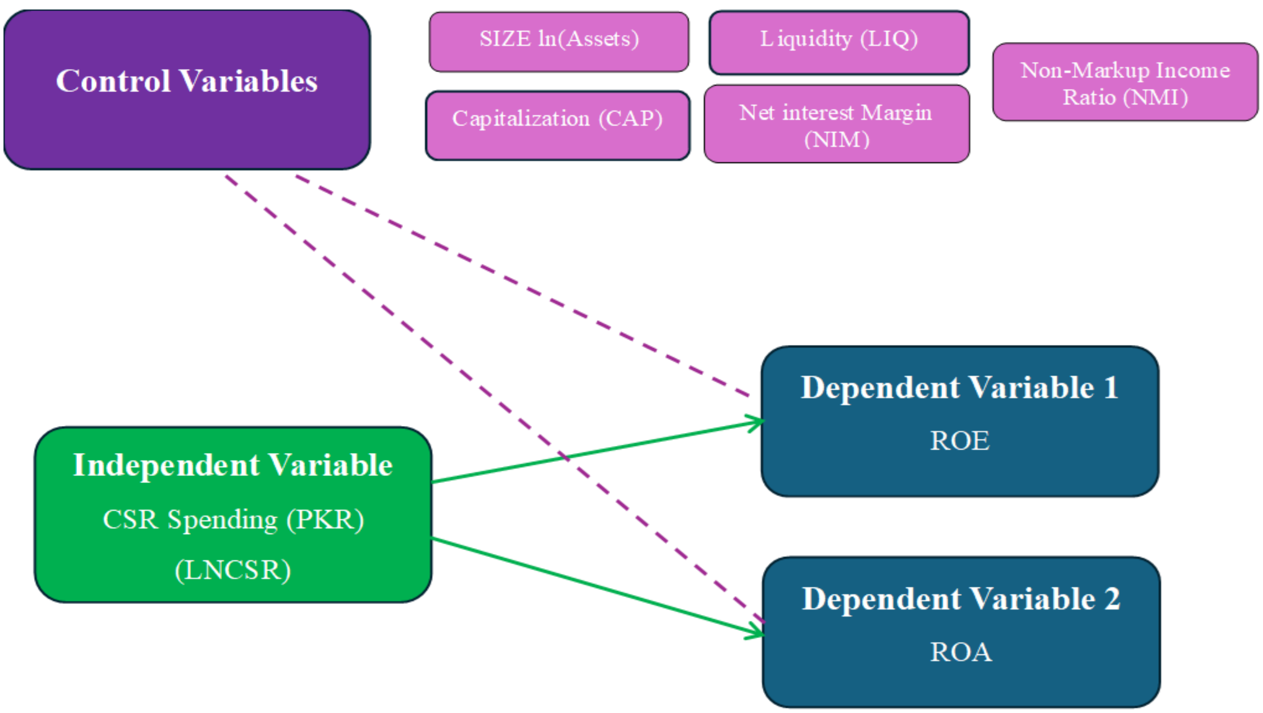

Figure 3. 1: Conceptual Framework Diagram

Industry Analysis

Industry Profile

The banking sector is considered as one of the main pillars of the financial system of Pakistan. Banks are financial middlemen. They take deposits from the general public and lend money to the government, corporations, and private individuals. Additionally, digital banking services enable payment systems, trade finance, investments, and other forms of economic development in general. This is a crucial role, and bank financial performance has a direct bearing on confidence, economic expansion, and financial stability.

The banking sector of Pakistan consists of traditional conventional banks, Islamic banks, micro-finance banking, development financial institutions, and foreign banks. The financial industry is dominated by commercial banks. It is estimated that banks held 78.5 percent of the assets of the financial sector of Pakistan during CY23.According to the Financial Stability Review 2023 of the State Bank of Pakistan, banks have a 78.5 percent share of the country's financial sector assets. The value of banks' assets went up by Rs. Expected in CY22 was Rs. 35,796 billion, and in CY23 it was Rs. 46,364 billion, up 29.5%.

Despite economic difficulties, the banking industry remained relatively steady in 2023. The financial sector is also feeling the pinch as inflation climbs, pressure mounts on currency rates and stabilization measures are implemented, data provided by the State Bank of Pakistan (SBP) shows. Nonetheless, banks provided payment services, were financially sound, and ran smoothly. The expansion of banking assets was fueled by investments in government securities, and revenues remained strong as a result of an increase in earning assets kept in an environment with high interest rates.

The profitability of the banking sector also increased at that time. After-tax profit of the banking industry jumped 90.9 percent to Rs. 642.2 billion in CY23. After-tax ROE increased to 27.1 percent from 16.9 percent last year After-tax ROA increased to 1.6 percent from 1.0 percent in CY22. That means banks earned more profits in 2023, primarily on net interest and markup income.

Another important feature of the banking sector is its capital strength. The banks' improved solvency levels this year were mainly due to better earnings, the SBP said. The banking industry's overall capital adequacy ratio is higher than the minimum domestic regulatory requirement and international requirements. This shows that the industry was robust and willing to take risks.

The establishment of Islamic banking has become an important component of Pakistan's banking framework. Information regarding the assets of the Islamic banking industry as of October 31, 2023, and December 31, 2023, is sourced from the Islamic Banking Bulletin issued by the State Bank of Pakistan (SBP)At December 31, 2023, deposits were Rs. 8,994 billion and withdrawals were Rs. 6,749 billion. Islamic banking assets grew by 24.4 per cent while deposits grew by 30.8 per cent compared to the same period last year. As at 31st December 2023, Islamic banking deposits accounted for 23.2% of total deposits belonging to the banking industry whilst Islamic banking financial assets accounted for 19.4% of total assets of the industry.

The analysis is limited to the selected nine banks operating in Pakistan. These are the largest banks in Pakistan, conventional and Islamic. The final balanced panel has 99 observations and the study period is from 2013 to 2023. The results file is constituted by 11 periods, 9 cross-sections and 99 balanced panel observations.

CSR is vital to be followed because without public trust, banking industry could not function. Banks are involved in community welfare, education, healthcare, charitable giving, disaster relief and other social activities. In this study, we measure CSR expenditures as the natural log of CSR spending on donations and charities, or LNCSR. Bank performance is measured by ROE and ROA while the control variables are bank size, capitalization, liquidity, non markup income ratio and net interest margin.

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Time Series Analysis

In the time period analysis it is possible to see the trend of the variables of the study, in this case, in the form of the average year. Averages are calculated from the average of selected 9 banks for each year between 2013-2023. This analysis can help to understand the change in CSR spending, bank performance and bank-specific control variables during the period.

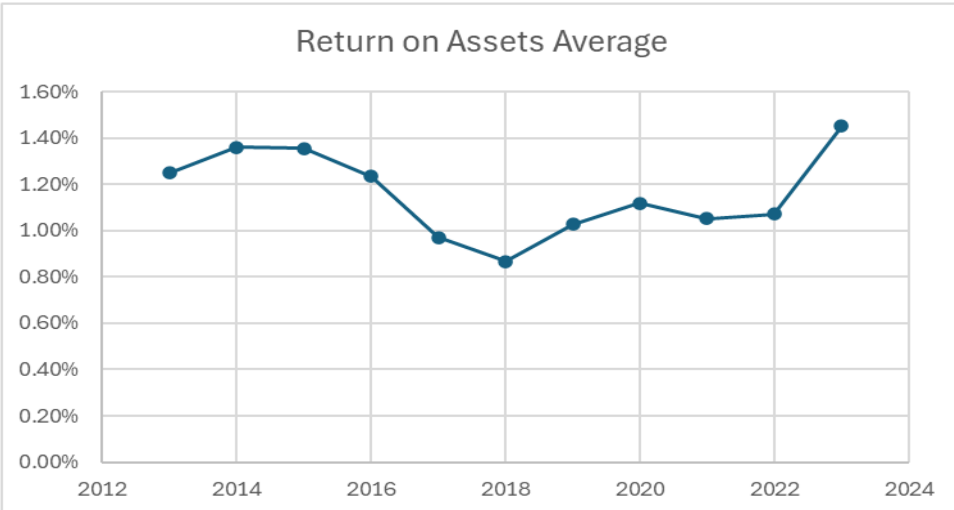

Figure 4.1: Return on Assets Average

On average over the time horizon considered, the Return on Assets followed a variable trend. ROA was relatively stable in the early years, but fell at about the midpoint of the period. Then it began to improve slowly and peaked in the last year. This indicates that the chosen banks increased their efficiency in use of assets and profitability in the later part of the study period. This improvement in ROA is consistent with the overall banking sector performance reported by State Bank of Pakistan with after-tax ROA improving in CY23.

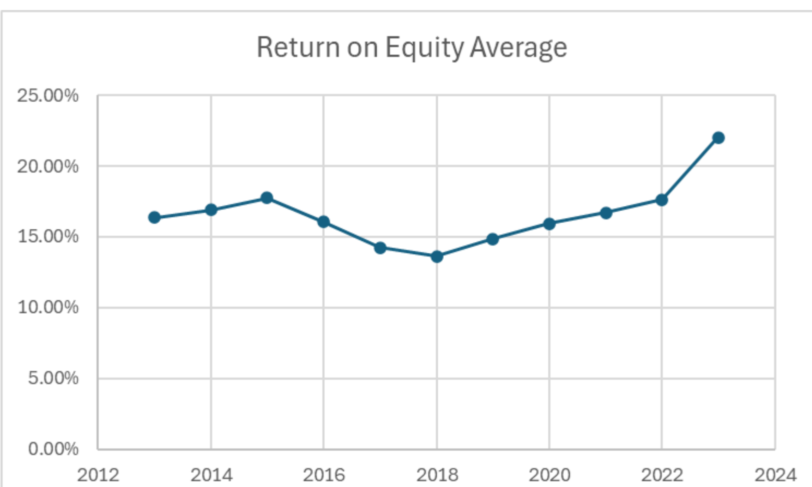

Figure 4.2: Return on Equity Average

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The returns on Equity also fluctuated over the period of study. The ROE averaged up in the early years, down during the middle years and up in the later years. The increases over the last few years show that the selected banks were more profitable for shareholders. Similarly, the overall banking sector has also followed the trend as the after-tax ROE rose from 16.9 percent in CY22 to 27.1 percent in CY23.

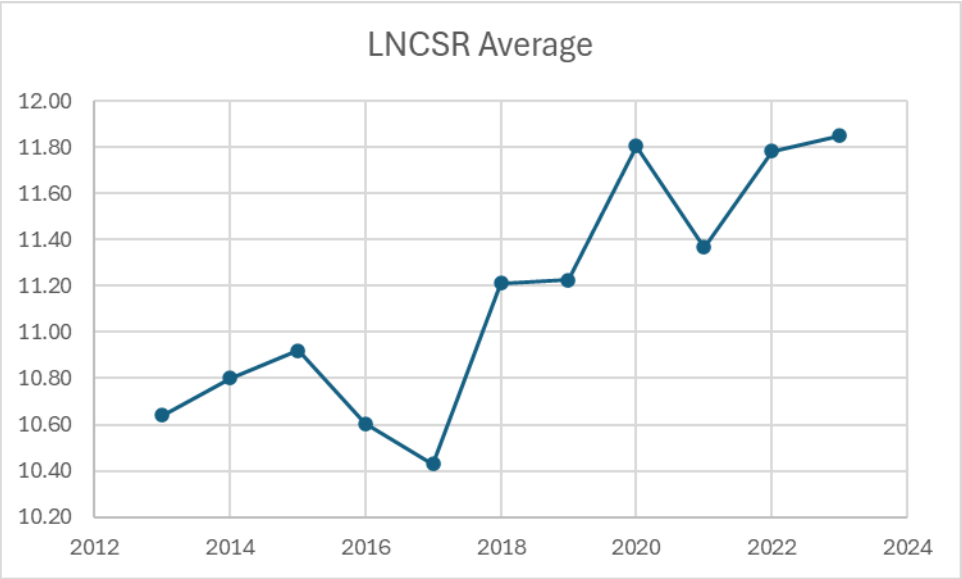

Figure 4.3: LNCSR Average

The average LNCSR is the trend of the CSR expenditure of the selected banks. CSR spending was not consistent through the early years and declined in some middle years. But the trend improved in the following years, showing that the banks were spending more on CSR activities such as donating to charities. This implies that some banks began to pay more attention to community support and social welfare activities gradually. As the banking industry is a trust based industry, increased CSR spending may strengthen reputation and stakeholder confidence.

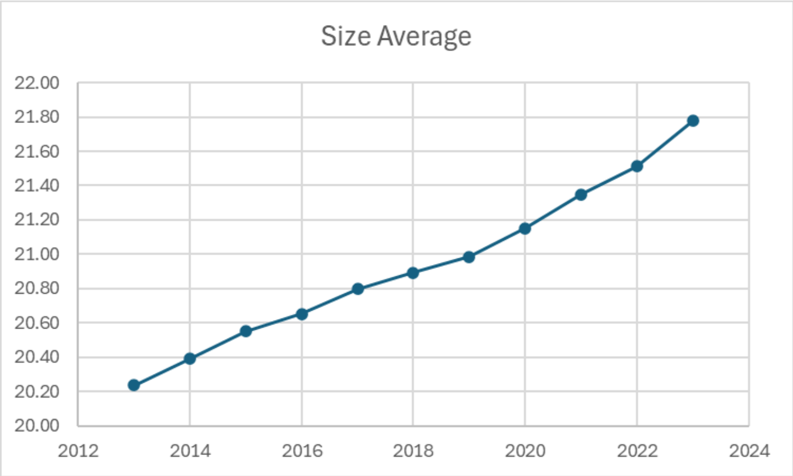

Figure 4.4: Size Average

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The selected banks' average size is rising throughout the study period. The growth in size is reflected in the natural log of total assets, which shows that the assets of selected banks grew over time. This is in line with the banking industry, where banking sector assets grew to Rs. 46,364 billion in CY23. The increase in size of the banks reflects the expansion of banking activities, investments, deposits and the strength of the banks' balance sheets.

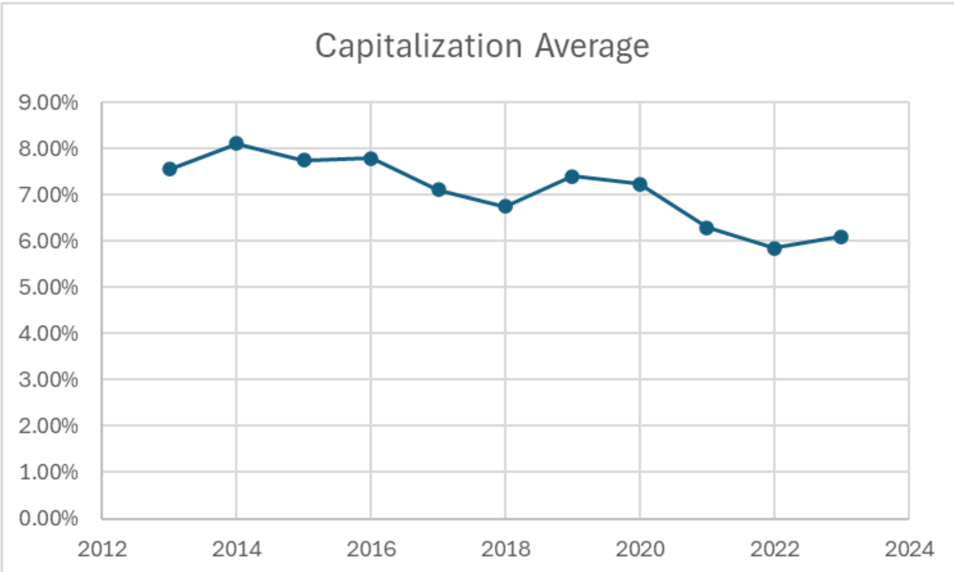

Figure 4.5: Capitalization Average

There was overall declining trend in capitalization average in the period under study. The capitalization ratio is total equity/total assets. In some years, an increase in total assets has occurred at a greater rate than the increase in equity, indicated by a decrease in this ratio. This can occur when banks either increase their assets through deposits, borrowings, or other liabilities. Overall, however, the banking sector was well capitalized with the SBP reporting that capital adequacy was maintained above the regulatory norms in CY23.

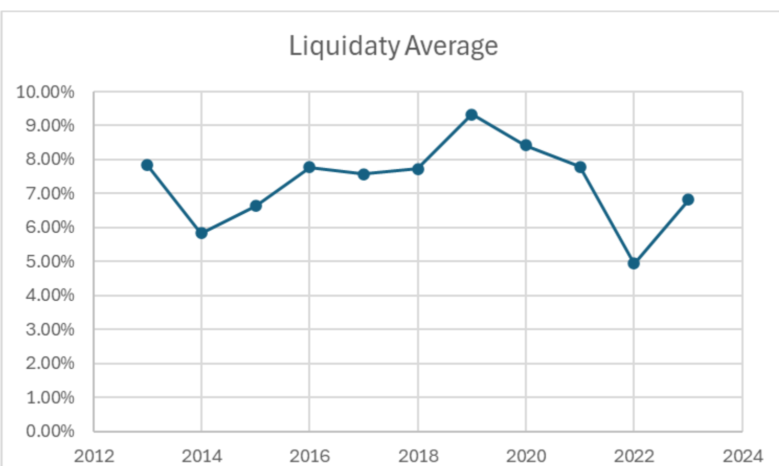

Figure 4.6: Liquidity Average

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The liquidity ratio had an erratic behavior between 2013 and 2023. For some years, liquidity decreased, increased in the middle years, and then decreased again, before recovering in the last year. This reflects the fact that selected banks changed their liquidity in response to the changes in their funding requirements, deposit patterns and investment opportunities. The SBP has also shared that banking sector remained in a comfortable liquidity position in CY23 with government securities holdings.

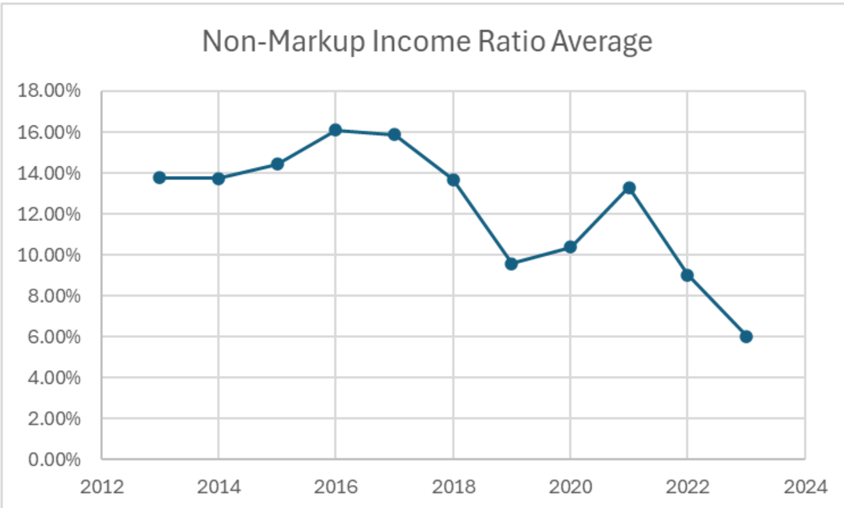

Figure 4.7: Non-Markup Income Ratio Average

The non-markup income ratio rose on average in the early years and was higher in the middle of the study period. Following this, it decreased in the subsequent years. This means that non-markup income share of total income declined as time passed. Non-markup income consists of fees, commissions, income generated from foreign exchange transactions, dividends, and other non-interest activities. A decrease in this ratio indicates that selected banks have increasingly relied on markup-based income in recent years.

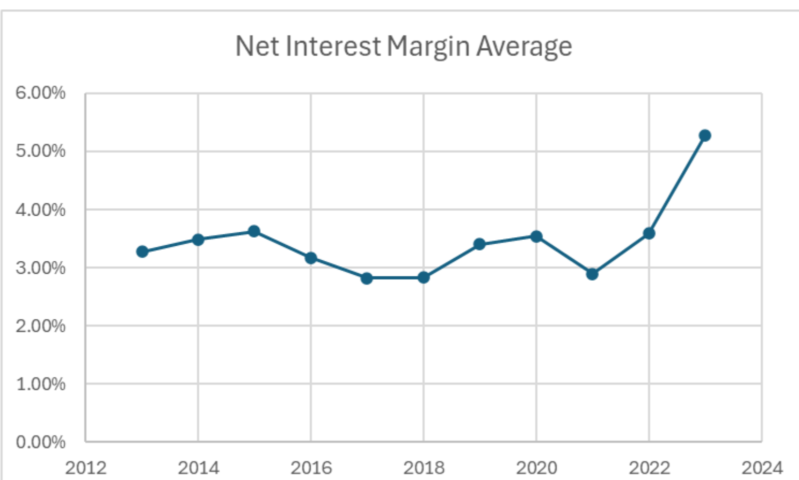

Figure 4.8: Net Interest Margin Average

Net Interest Margin averaged over the study period was not significantly different, but stood idle at the end of the study period. NIM is the amount of income from markups minus the amount of expense on markups divided by total assets. This rise in NIM was the result of higher spreads on the basic banking activities. This is also aligned with overall sector performance in CY23, in which the net interest/markup income was the primary contributor to the banking's profitability.

The time series analysis revealed that the selected banks grew in size, had an increased profitability in the later years, experienced fluctuation in liquidity and capitalization, and recorded a significant increase in the net interest margin in the last year. Banks' CSR spending also got better in later years, indicating that banks got more involved in CSR activities. The above trends give an idea about the empirical study of the effect of CSR investment on ROE & ROA.

Methodology

To examine the second hypothesis, the study utilizes secondary data obtained from the annual financial statements of selected banks operating in Pakistan. The analysis is conducted using information extracted from the published annual reports of these banking institutions. The primary objective is to investigate the effect of CSR expenditure on bank profitability. Accordingly, CSR expenditure is treated as the independent variable, while ROE and ROA are employed as indicators of financial performance. In addition, several bank-specific control variables are incorporated into the analysis to assess the impact of CSR expenditure while accounting for the internal financial characteristics and operating conditions of the banks.

Sampling

A study of Pakistan's banking industry has been chosen. Nine banks that operate in Pakistan make up the sample units. The period under analysis was selected due to the availability of their consolidated financial statements, CSR spending data and other accounting data.

The study is conducted from 2013 to 2023. As a result, 11 years and 9 banks, or 99 observations, make up a balanced panel. Along with 99 "balanced panel observations," the results file reveals that the model has 11 "periods" and 9 cross sections.

Selected banks are leading banks of Pakistan having conventional as well as Islamic banking activities. As banks play a crucial role in the financial system and interact closely with various stakeholders, including depositors, borrowers, shareholders, regulators, and the broader community, the banking industry serves as a suitable setting for investigating the impact of CSR spending on bank performance.

Model

Models will be used to check the impact of control variables and CSR spending on financial performance of particular Pakistani banks. While, ROE and ROA are the variables that are dependent in this study. LNCSR is the natural log of CSR and indicates the level of CSR. Control variables are bank size, capitalization, liquidity, net interest margin, fraction of non-markup revenue, and so on. Finally for the last model paper has identified SIZ, CAP, LIQ, NIM and NMI as control variables. ROE and ROA are dependent and LNCSR is independent.

Below are listed models that were used in this study:

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Model 1:

$ROE=\beta 0+\beta 1(LNCSR)+\beta 2(SIZ)+\beta 3(CAP)+\beta 4(LIQ)+\beta 5(NIM)+\beta 6(NMI)+\epsilon$

Model2:

$ROA=\beta 0+\beta 1(LNCSR)+\beta 2(SIZ)+\beta 3(CAP)+\beta 4(LIQ)+\beta 5(NIM)+\beta 6(NMI)+\epsilon$

Whereas:

Variable	Definitions	Source
Independent variables		
lnCSR	Natural log of CSR Amount. (Amount spent on donations and charities)	Bank Scope
Dependent variables		
ROE	From Bank's Financial Reports	Bank Scope
ROA	From Bank's Financial Reports	Bank Scope
Control variables		
Size (SIZ)	Natural log of total assets	Bank Scope
Capitalization (CAP)	Total equity / Total assets	Bank Scope
Liquidity (LIQ)	Liquid assets / Total assets	Bank Scope
Non-Markup Income Ratio (NMI)	Non-markup income / (Non-markup income + Markup income)	Bank Scope
Net Interest Margin (NIM)	(Markup income − Markup expense) / Total assets	Bank Scope

Measurement of Variables

ROE and ROA will be the dependent variables in the study. These are widely used accounting measures of bank performance. ROE shows how profitable a bank may be for every dollar that shareholders contribute, as well as what proportion of the bank's assets are used to make that profit. In Shabir et al.'s study of CSR and the performance of banks in emerging nations, ROA and ROE are also regarded as performance metrics (2024).

The variable of CSR spending is independent. It is measured by the natural log of CSR expenditures made by banks to charities and contributions (LNCSR). The CSR expenditures are converted into natural logs in order to reduce the impact of the large disparity in CSR expenditures among banks and to improve the appropriateness of the data for regression analysis.

The control variables are included because banks' success may not be driven solely by CSR spending. Other factors that can influence ROE and ROA are bank size, net interest margin, capitalization, income structure and liquidity. Thus, these factors are taken into the model to minimize their impact on banks' financial performance.

Estimation Technique

This study used panel data approach because the data set is cross-sectional and time series. The cross section has nine banks and the time series has eleven years from 2013 to 2023. The ad-

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vantage of panel data is that it enables the researcher to see how the data changes over time within the banks.

We will run a regression analysis using Panel Least Squares. The model employs cross-section fixed effects to control for differences across banks that are unlikely to vary over time. The differences between these banks can be explained by the way they do business, the way they treat their customers, the way they run their branches, the way they take risks, and their policies. The outcomes in both the models are computed using Panel Least Squares (cross-section fixed effect) and White cross-section time period cluster standard deviations.

The use of fixed effects is possible since each bank may have some elements that influence profitability but are not included in the variables. When these unobserved bank-level characteristics are eliminated in cross-section fixed effects (CSEFs), the effects of CSR spending on financial performance are more precisely quantified.

Sources and Nature of Data

This research is based on secondary data. The information utilized was gathered from the annual financial reports and financial statements of a few chosen banks for the years 2013–2023. The amount recorded under donations, charities, or CSR-related spending is subsequently used to allocate the funds for CSR expenditures. Banks' financial statements contain the following data: total assets, total equity, liquid assets, markup income, markup expense, non-markup income, ROA, and ROE.

The total data set consists of 99 observations (9 banks x 11 years). Every chosen bank has data for every year (2013–2023), and the panel is balanced.

Results

In this section the actual outcomes of the study are. The findings are presented in three sections: regression analysis, correlation analysis and descriptive statistics. Descriptive statistics are used to summarize and present the fundamental characteristics of the dataset. Correlation analysis helps determine the strength and direction of the association between variables. Furthermore, regression analysis is employed to examine the impact of CSR expenditure and other control variables on the financial performance of banks.

For the study, a balanced panel of 9 selected banks in Pakistan with an observation period of 10 years (from 2013 to 2023) has been used. The variables that are analyzed are ROE, ROA, LNCSR, SIZ, CAP, LIQ, NMI, and NIM.

Descriptive Statistics

Table 6.1: Descriptive Statistics

Variable	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness
ROE	0.165518	0.1694	0.26721	0.05735	0.043733	0.143575
ROA	0.011593	0.0101	0.02309	0.00132	0.004555	0.780439
LNCSR	11.14845	11.28874	12.93827	8.006368	1.264904	-0.604241

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SIZ	20.93642	20.9537	22.44156	19.61377	0.644996	0.034599
CAP	0.070793	0.065722	0.139204	0.041221	0.023094	0.989617
LIQ	0.073351	0.071007	0.124551	0.039056	0.016548	0.446363
NMI	0.123588	0.1208	0.216402	0.040606	0.039486	0.141904
NIM	0.034478	0.032284	0.087393	0.021775	0.009651	2.717506

Total observations: 99

The mean ROE for the selected banks is 0.165518 as shown in the above table, implying that the average ROE for the selected banks over the study period was about 16.55 percent. The median ROE value is 0.169400. The minimum is 0.057350 and the maximum 0.267210. Looking at the ROE of selected banks, the standard deviation is 0.043733 which shows a moderate variability. The skewness value of ROE distribution is positive (0.143575), which means that there is a slight right tail.

The average return on assets (ROA) of the selected banks was 0.011593 or around 1.16 percent. The median is: 0.010100. The maximum ROA value is 0.023090 and the minimum ROA value is 0.001320. The standard deviation is 0.004555 which shows that the values of ROA are not widely spread. The ROA is positively skewed because the skewness is 0.780439.

The mean and median LNCSR values are 11.14845 and 11.28874 respectively. The maximum value of LNCSR is 12.93827 and the minimum value of LNCSR is 8.006368. The standard deviation, which is 1.264904, indicates that the chosen banks' CSR spending varies. The LNCSR distribution is left-tailed (negative skewness = -0.604241) which indicates that some banks spent very little on CSR.

SIZ Median 20.95370 Mean 20.93642 The size of the selected banks is strong, calculated as the natural log of total assets. The SIZ values range from 19.61377 (min) to 22.44156 (max). This is because the standard deviation for the banks is very low at 0.644996 which means there is not much variance amongst banks. The skewness score of 0.034599 indicates that the distribution of bank size is approximately normal.

The average CAP value is 0.070793. On average equity is 7.08 percent of total assets. Median value of CAP is 0.065722. The minimum value is 0.041221 and the maximum value is 0.139204. The standard deviation of the degree of capitalization is moderate 0.023094. The positive skewness score of 0.989617 indicates that there are some banks that are more capitalized than the average.

The mean LIQ value is 0.073351, and the median LIQ value is 0.071007. This shows that, on average, the liquid assets of the chosen banks accounted for 7.34 percent of their total assets. The maximum value is 0.124551 and the minimum value is 0.039056. The standard deviation is 0.016548 which shows that the liquidity of the banks does not vary much. The skewness rating of 0.446363 indicates a modest rightward skew.

The NMI has a median of 0.120800 and a mean of 0.123588. This indicates that non-markup income accounted for 12.36% of the total combined income of the chosen banks, which comes from both markup and non-markup income. The lowest value is 0.040606, and the largest is 0.216402. However, the non-markup income ratio varies somewhat amongst banks, as seen by the standard deviation figure of 0.039486. The skewness value is 0.141904, indicating a slight positive skew.

The mean and median values of NIM are 0.034478 and 0.032284, respectively. The chosen banks achieved an average profit margin of 3.45 percent on their net interest margin. NIM has a maximum value of 0.087393 and a lowest value of 0.021775. The standard deviation of 0.009651 indicates moderate variation. Some banks have significantly greater margins than the average, and NIM's skewness score of 2.717506 indicates a high right skewness.

Correlation Analysis

In order to further analyze the secondary quantitative data, correlation analysis is employed to determine the significance, direction, and strength of the link between the variables. The correlation coefficient is represented by the first number in the table below, and the p-value is shown by the number in brackets. The correlation is based on 99 observations for the output period 2013–2023.

Table 6.2: Correlation Analysis with P-values

	ROE	ROA	LNCSR	SIZ	CAP	LIQ	NMI	NIM
ROE	1							
ROA	0.56055	1						
	0.000							
LNCSR	0.210032	-0.08011	1					
	0.0369	0.4306						
SIZ	0.164361	0.142494	0.47926	1				
	0.104	0.1594	0					
CAP	-0.19044	0.686225	-0.2551	0.012571	1			
	0.059	0.000	0.0108	0.9017				
LIQ	-0.28587	-0.13083	0.142067	0.126964	0.11328	1		
	0.0041	0.1968	0.1607	0.2105	0.2642			
NMI	-0.28686	0.197314	-0.37651	-0.36463	0.48387	0.1482	1	
	0.004	0.0503	0.0001	0.0002	0.000	0.1432		
NIM	0.494293	0.563122	0.121888	0.279119	0.21439	-0.02684	-0.33322	1
	0.000	0.000	0.2294	0.0051	0.0331	0.792	0.0008	

The correlation analysis reveals a positive and statistically significant relationship between ROE and ROA, with a correlation coefficient of 0.560550 and a p-value of 0.0000. This finding suggests that banks with higher returns on assets tend to generate higher returns on equity.

A positive and statistically significant association is also observed between the natural logarithm of CSR expenditure (LNCSR) and ROE, with a correlation coefficient of 0.210032 and a p-value of 0.0369. This indicates that increased CSR spending is associated with improved returns to shareholders. In contrast, the relationship between LNCSR and ROA is statistically insignificant, as evidenced by a correlation coefficient of -0.080107 and a p-value of 0.4306.

Bank size (SIZ) exhibits a positive but statistically insignificant relationship with both ROE and ROA, with p-values of 0.1040 and 0.1594, respectively. Nevertheless, SIZ demonstrates a strong and statistically significant positive association with LNCSR, with a correlation coefficient of 0.479260 and a p-value of 0.0000. This finding implies that larger banks are more likely to allocate greater resources toward CSR activities.

With a p-value of 0.0590 and a weak correlation of -0.190435, the values of CAP and ROE are negatively associated. With a p-value of 0.0000 and a correlation value of 0.686225 for CAP, it is evident that these two have a strong positive link. This indicates a strong link between high capitalization and high asset-based profitability.

The association coefficient corresponding to LIQ is negatively correlated and significant with ROE of -0.285865 with p value of 0.0041. The ROE of the company seems to fall as the company becomes more liquid. LIQ and ROA also have a negative but negligible relation with a p-value of 0.1968.

The Non-Markup Income Ratio (NMI) demonstrates a negative and statistically significant relationship with ROE, with a correlation coefficient of -0.286864 and a p-value of 0.0040. Although NMI exhibits a positive association with ROA, the correlation coefficient is relatively small (0.197314), and the relationship is not statistically significant at the conventional level, as indicated by a p-value of 0.0503. Furthermore, NMI is strongly and positively associated with capitalization (CAP), while it shows strong negative correlations with both CSR expenditure (LNCSR) and bank size (SIZ).

The findings also reveal positive and statistically significant relationships between Net Interest Margin (NIM) and both measures of financial performance. Specifically, NIM has a correlation coefficient of 0.494293 with ROE and a p-value of 0.0000, while its correlation with ROA is 0.563122, also with a p-value of 0.0000. These results suggest that higher net interest margins are associated with improved financial performance among banks. We also find strong negative relationships between NIM and NMI and strong positive relationships between NIM and SIZ and CAP.

Regression Analysis

The relationship between banks' financial performance, expenditure on CSR, and additional control variables is examined using a regression method. Two regression models are estimated. The dependent variable in the first model is ROE. The second model takes ROA as the dependent variable. We estimate the two models using Panel Least Squares, cross-section fixed effects and cross-section period cluster standard errors.

Model 1: Dependent Variable ROE

Table 6.3: Regression Results for ROE

1- Dependent Variable: ROE				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-0.187675	0.193351	-0.97064	0.355
LNCSR	0.007695	0.00315	2.442685	0.035

SIZ	0.011451	0.010428	1.098126	0.298
CAP	0.212707	0.212974	0.998748	0.342
LIQ	-0.772787	0.301447	-2.56359	0.028
NMI	0.115205	0.183248	0.628684	0.544
NIM	1.596651	0.539274	2.960743	0.014

Model Statistics	**Value**
R-squared	0.695087
Adjusted R-squared	0.644268
F-statistic	13.67775
Prob(F-statistic)	0
Durbin-Watson stat	1.562302

Fixed Effect Model

The LNCSR coeff or 0.007695 as shown in the table above is positive. Thus, CSR spending has a positive impact on ROE. The probability value for LNCSR is 0.0347, which is less than 0.05. Therefore, CSR spending is statistically significant in relation to ROE. The findings show that the investment of banks in CSR initiatives such as charitable giving and donations is positively correlated with the return on equity. This means that the more the banks invest in CSR activities, the higher the return on equity.

The positive coefficient of SIZ (0.011451) indicates the positive relationship between ROE and bank size. This association, however, was not statistically significant (P=0.2979). The ROE is not a relevant factor in this model as it has no meaningful explanation.

The positive value of capitalization (0.212707) indicates a positive relationship between capitalization and ROE. But the likelihood value is not statistically significant at 0.3415. This indicates that in the paradigm, the capitalization has little effect on the ROE.

The coefficient of LIQ is -0.772787 and the probability value is 0.0282. The two are statistically significantly negatively associated. This suggests that an increase in liquid assets can adversely affect the ROE. Liquid assets may also earn less than loans, advances or investments on the whole.

It is found that NMI and ROE have the same positive coefficient which is 0.115205. However, the likelihood value is not significant statistically at 0.5436. In this case the non-markup income ratio is not very relevant to ROE.

NIM has a positive coefficient value of 1.596651, P value of 0.0143. We can see that the net interest margin is a positive predictor of ROE as it is positive and statistically significant. This simply means that the bank with higher NIM will make more profits for its investors.

The R-squared value obtained is 0.695087 which shows that the variation of the LNCSR and control variables explains 69.50 percent of the R-squared value. The model accounts for around 64.43 percent of the variation in ROE after correction (the corrected R-squared value is 0.644268). The model is statistically significant overall, with probability 0.000000 for the F-statistic.

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Model 2: Dependent Variable ROA

Table 6.4: Regression Results for ROA

2- Dependent Variable: ROA				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-0.030522	0.018302	-1.66764	0.1264
LNCSR	0.000329	0.000267	1.231899	0.2462
SIZ	0.001154	0.000995	1.15986	0.273
CAP	0.172586	0.021414	8.059375	0
LIQ	-0.065722	0.019973	-3.29059	0.0081
NMI	0.013522	0.014218	0.951048	0.364
NIM	0.151381	0.046917	3.226584	0.0091
Model Statistics		**Value**		
R-squared		0.824264		
Adjusted R-squared		0.794975		
F-statistic		28.14219		
Prob(F-statistic)		0		
Durbin-Watson stat		1.385637		
Fixed Effect Model				

The previous table shows the value of LNCSR is 0.000329 which is positive. This suggests that ROA and CSR spending are positively related. However, the p-value of 0.2462 exceeds the conventional significance threshold of 0.05, indicating that the relationship is not statistically significant. Therefore, the results suggest that there is no significant association between CSR expenditure and Return on Assets (ROA), as clearly demonstrated by the findings presented in the table. The results indicate that CSR expenditures of selected banks are not significantly explanatory of ROA of selected banks for the period under study.

The coefficient of SIZ is positive (0.001154) and indicates that the bank size is positively related to ROA. However, the likelihood value of 0.2730 shows that there is no statistical significance in the association. This would imply that the size of banks is not important for ROA in this paradigm. The probability value is 0.0000 and the CAP coefficient is positive (CAP = 0.172586). This shows the positive and significant impact of capitalization on ROA. Banks with better ROA performance are expected to have a higher equity to total asset ratio.

Coefficient of LIQ is -0.065722 with probability value 0.0081. This indicates there is a significant negative effect between liquidity and ROA. An increase in liquid assets can be detrimental to profitability as liquid assets tend to generate lower returns than earning assets.

The NMI coefficient is 0.013522 and positively related to ROA. However, the probability value is 0.3640 which is not statistically significant. This means that the ratio of non-markup income has no significant impact on ROA in this model.

The probability value is 0.0091 and the NIM coefficient is positive (0.151381). This suggests that ROA and margin of net interest are significantly positively linked. This means that banks can generate more return on assets if they have a bigger spread (revenue minus expense).

The R squared value of 0.824264 shows that the model LNCSR and control variables account for about 82.43 percent of the variation. The R-squared value of 0.794975 shows that the model after modification explains almost 79.50 percent of the variance in ROA. The overall model is statistically significant with an F-Statistic probability value of 0.000000.

Discussion

The main objective of this research was to investigate the association between CSR expenditure and the financial performance of selected commercial banks in Pakistan. Financial performance was assessed using two widely accepted accounting-based measures: ROE and ROA. CSR expenditure was measured using the natural logarithm of each bank's CSR spending (LNCSR), which was derived from the amount of charitable donations and other CSR-related contributions made by the bank. The control variables were bank size, capitalization, liquidity, non-markup income ratio, and net interest margin. The study was able to construct 99 balanced observations from the panel data of 9 selected banks in the period of 2013-2023 i.e. 11 years. Regression study demonstrated positive and strong connection between ROE and CSR spending. The LNCSR coefficient is 0.007695 and p value is 0.0347 which implies that there is positive relationship between CSR expenditure and shareholders' return. The results show that a bank's reputation, stakeholder confidence and public visibility may all be positively associated to higher effort in social welfare activities (e.g. donations to charities). The banking business is based on a trust system and socially aware acts can boost consumer confidence and reward shareholders. The stakeholders of banks are depositors, borrowers, staff, shareholders, regulators and the general public. The money invested on CSR may indirectly aid banks by enhancing their ties with these stakeholders. Furthermore, Wu and Shen (2013) discovered that the strategic implementation of CSR can lead to an improvement in the financial performance of the banking business. Shabir et al. (2024) underlined that CSR efforts have a major impact on the performance of banks.

The results of the correlation analysis corroborate the above conclusion. LNCSR and ROE have a positive correlation coefficient of 0.210032 and p value of 0.0369. This indicates that there is a positive and significant relationship between CSR expenditure and ROE. The absence of a significant association corroborates the regression conclusion that CSR expenditure data is useful in understanding the profitability from the shareholders' perspective. However, CSR expenditure has a marginal positive effect. In ROA model, the coefficient of LNCSR is 0.000329 and p-value is 0.2462. This suggests that although CSR expenditure is moving in the right direction, it does not have much impact on asset profitability. The ROA ratio is a measure of how effectively a bank uses its total assets to generate income. CSR investments in charity organizations and gifts may impact goodwill and reputation, but they may not immediately improve asset use. Thus, it is evident from the study's findings that ROE is more sensitive to CSR spending than ROA. The findings somewhat conflicted with those of Szegedi et al. (2020), who discovered a favorable correlation between CSR disclosure and the accounting-based performance metrics (ROA and ROE) of Pakistani listed banks. One reason for the discrepancy could be the way CSR is measured. LNCSR is used in this study to quantify actual CSR spending, while CSR disclosure is used in Szegedi et al. However, the disclosure could be more open and apparent to the public, and the short-term performance of the assets might not be immediately impacted by the CSR expenditures. One of the control variables that significantly and negatively affects ROE and ROA is liquidity. The coefficient of LIQ in the ROE model is -0.772787, and the p-value is 0.0282.

The coefficient of LIQ in the ROA model is -0.065722, and the p-value is 0.0081. It suggests that a bank's profitability decreases with increasing liquidity. One possible explanation is that investments, loans, and advances yield larger returns than liquid assets. Liquidity is crucial for bank security and short-term needs, but having too much of it could hurt profitability because the money would be put into low-yielding assets.

Net interest margin is positively and statistically significant correlated with ROE and ROA. The p value of the ROE model is 0.0143 and the NIM coefficient is 1.596651. The NIM coefficient for the ROA model is 0.151381 and the p value is 0.0091. This makes sense, because there is a difference between earned and paid interest. Banks with higher net interest margins are able to make more money from standard banking operations, which makes the asset and return to shareholders more profitable. According to the coefficient of capitalization, which is equal to 0.172586, and the P value, which is equal to 0.0000, the positive relationship between capitalization and ROA may be summarized as follows: the higher the ROA, the greater the capitalization. This suggests that banks can produce higher ROA if they have a high equity ratio relative to total assets. Increased financial stability, lower risk, and increased profitability are all possible outcomes of good capitalization. The positive but negligible correlation between capitalization and ROE suggests that this variable in the model does not adequately explain shareholders' return. The bank's size has a strong positive correlation with both ROE and ROA, but it has no significant correlation with both ROE and ROA. This implies that there is currently no significant association between the size of the banks and their performance in this study. Larger banks typically have more branches or assets and are more visible in the market, although they are not always more lucrative. In a similar vein, ROE and ROA are positively but marginally impacted by the non-markup income ratio. This suggests that the performance of the chosen sample of banks cannot be meaningfully explained by fees, commissions, foreign exchange income, or non-markup income.

Overall, the explanatory power of both models is quite good. ROE's adjusted R-squared value is 0.644268, whereas its R-squared value is 0.695087. Put differently, the study's control factors account for 64.43 percent of the variation in ROE, which can be explained by CSR spending. The ROA model's R-squared value is 0.824264, and its adjusted R-squared value is 0.794975, indicating that it explains 79.50 percent of the variation in ROA. The probability value of the F-statistic calculated for both models is 0.000000, indicating that both models are statistically significant overall. The first hypothesis is supported by the regression's findings. There is a noteworthy and substantial correlation between the ROE of certain Pakistani banks and their CSR expenditures. It is advised that the more the CSR expenditure, the higher the ROA, despite the fact that hypothesis 2 was statistically rejected due to the fact that the correlation between CSR spending and ROA is positive but not statistically significant. According to the study's findings, a company's asset-based performance (ROA) is not significantly impacted by its CSR spending over the study period, while its shareholder-based performance (ROE) is positively impacted. The findings suggest that CSR spending shouldn't be viewed as just an expense. CSR expenditure may be beneficial to Pakistani banks in one or more of the following ways: improving the bank's brand, increasing shareholder confidence or building social goodwill. But it doesn't do much for the asset efficiency. This implies that banks should design their CSR initiatives more strategically and quantitatively for the attainment of financial and social benefit from their CSR expenditure.

Conclusion

The banking industry was considered for the study because of the importance of the financial sector in financial intermediation, economic development, public confidence and social development. The data of the chosen banks were gathered from their financial reports and annual statements for the period from 2013 to 2023. The two financial performance measurements used in this study were ROE and ROA. LNCSR is the independent variable for CSR expenditure, which is the natural logarithm of the real CSR donations and charitable spending. The size of the bank, its capitalization, the liquidity ratio, the non-markup income ratio, and the net interest margin were known as control variables. The resulting model had control variables (SIZ, CAP, LIQ, NIM and NMI), dependent variables (ROE and ROA) and an independent variable (LNCSR).

The study employed panel data of nine banks over a period of 11 years, with 99 balanced observations. The link among the variables was explored using regression analysis, correlation analysis, and descriptive statistical analysis. The average ROE and ROA of the banks selected for the study were 0.165518 and 0.011593, respectively. The average value of LNCSR was found to be 11.14845 which means that some banks were spent money on CSR during the period of study. The correlation results show a positive and significant correlation value of 0.210032 with a p-value of 0.0369 between LNCSR and ROE. The data imply that the return to shareholders is favorably connected to CSR spending. There is no significant link between LNCSR and ROA, as indicated by the correlation coefficient's negative value of -0.080107 and the p value of 0.4306. The correlation research showed no significant relationship between CSR expenditures and asset based profitability of firms.

Regression analysis was also employed to test the hypotheses of the study. Both regression findings showed that LNCSR has a favorable and statistically significant effect on ROE. The LNCSR coefficient was 0.007695 and the p-value was 0.0347. Thus, the ROE of selected Pakistani banks have been positively contributed by CSR expenses. Thus, the hypothesis that started the study is confirmed. This finding implies that CSR investment may enhance shareholder-based performance through improving stakeholder confidence, public perception and reputation. ROA was used as the dependent variable in the second model. From the regression findings, the coefficient of LNCSR was 0.000329 which was positive and the p-value was 0.2462. This implies that CSR spending has little effect on asset returns. This means that the second hypothesis is not statistically supported. The CSR spending might adversely affect asset-based profitability in the short term. The only statistically significant control variable that was adversely linked with both ROE and ROA was liquidity. This increased liquidity, which normally yields lower returns than loans, advances and investments, will therefore have a negative impact on profitability. Banks with bigger net interest margin are more lucrative since they have positive and significant correlation with ROE and ROA. The effect of Capitalization was found to have no effect on ROE but a positive and large effect on ROA. In both models neither bank size nor the non-markup income ratio was significant.

Regression models were statistically significant overall. The ROE model's modified R-SQA of 0.644268 showed that the variables selected accounted for roughly 64.43% of the model's variation. The ROA model's adjusted R-squared value of 0.794975 indicates that the chosen variables account for about 79.50% of the variation in ROA. The probability value of the F-statistic, which was 0.000000 for both models, showed that both models were statistically significant. All things considered, depending on the bank performance metric employed, CSR expenditures may have an effect on bank performance. Return on Equity is much higher when more money is spent on CSR, while Return on Assets is not considerably different. It implies that CSR expenditures are more important in terms of shareholder profitability than in terms of asset profitability for specific Pakistani banks. Therefore, banks need to see corporate social responsibility (CSR) not just as a social responsibility but also as a strategic tool for brands to promote their responsible image, win over stakeholders, and increase shareholder returns.

Limitations of the Study

Several hurdles have to be overcome in order to complete this research investigation. Only nine Pakistani banks were included in the study. A larger sample size with more banks may yield more thorough data. Second, just the second half of the study (2013–2023) was carried out. If additional years' worth of data were available, the results would provide a longer time series perspective on the relationship between CSR spending and bank performance. Thirdly, this study solely examined CSR expenditures made to charities and donations. CSR encompasses a wide range of activities, including community development, education, health, the environment, employee welfare, and financial inclusion. Future research should employ a broader CSR index/CSR disclosure score.

Fourth, this analysis was based only on two accounting-based performance metrics: ROE and ROA. Alternative performance metrics such as Tobin's Q, earnings per share, net profit margin, cost-to-income ratio and market-based performance indicators could be useful in further research. Finally, this study included only bank-specific control variables. In future, macroeconomic parameters (inflation, growth rate of GDP, interest rates, financial development, and regulatory environment) can be investigated in detail to explore the relationship between CSR and performance.

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