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Impact of Corporate Social Responsibility (CSR) Practices on Financial Performance: Evidence from Pakistan Stock Exchange (PSX) Listed Non-Financial Firms

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Abstract:

The study aims to provide an investigation of the relationship between corporate social responsibility (CSR) practices and firm financial performance (ROA, ROE, Tobin's Q) across non-financial firms. The primary focus of the study is to examine separately the impact of environmental, community, customers' and employees' CSR on firms' financial performance in Pakistan. A sample of 108 listed non-financial firms have been selected. Firm's specific data is collected for 10 years' period from 2011 to 2020. The descriptive statistics, correlation and regression analysis have been applied for analysis. The study contributes to the literature by offering mixed results on the relationship between CSR practices and firm's financial performance. The environmental CSR practices have a negative impact on firms' ROA and an insignificant impact on ROE and Tobin's Q. The community CSR has a positive impact on ROA and the Tobin's Q. The customers' CSR practices have a negative influence ROE while employees' CSR practices unable to explain firm's financial performance. The study has implications for management, policy makers and academia. The management and board are advised to watch the impactful category of CSR and they must focus on long term sustainable growth while investing in CSR. Policy makers are advised to enhance efforts to foster external stakeholder awareness of total CSR. Future academic research can include financial firms and can extend the scope to other emerging markets.

Key Words: Corporate Social Responsibility, financial performance. Pakistan Stock Exchange, Non-Financial Firms.

Introduction

Firms' involvement in corporate social responsibility practices is increasing across the industry and throughout the globe and hence the topic receives attraction from researchers (Pisani et al., 2017). The notion of corporate social responsibility (hereinafter CSR) broadly denotes the extent to which a company considers the demands of its stakeholders in its corporate actions. CSR activities are

corporate activities of companies that are beneficial to society beyond their legal requirements (Gatti et al., 2019). Brown and Dacin (1997) described CSR as a company's continual commitment to ethical behavior, economic success, and improving the well-being of its employees, families, local communities, and society. Growing public awareness of the environment and resource sustainability highlights the importance of CSR for sustainable growth. Firms enroll in CSR initiatives to stratify distinct stakeholders by contributing charity for community development, improving employee working conditions, and reusing packing materials (Nan & Heo, 2007).

CSR integration in corporate strategy can take many forms, including ethical standards, community participation, philanthropy, cause-related marketing, and environmental impact management. (Lee & Kotler, 2011). CSR can be understood as a manifestation of a company's internal ethics and values. Growing public awareness of how corporate actions affect the environment and society have made CSR a key concern for many businesses. Companies are expected to be both socially responsible and financially accountable.

CSR have a positive impact on the financial performance of firms as revealed by the earlier studies using the meta analysis approaches (Orlitzky et al., 2003; Margolis et al., 2009). The positive relationship between CSR and financial performance has long been confirmed in the developed markets (Mcguire et al., 1988; Russo & Fouts, 1997; Orlitzky et al., 2003). The CSR awareness and its resultant benefit is well established in the developed markets. The CSR pays the firms back what they invest in public wellbeing. The socially responsible investment (SRI) now has taken deep roots in the developed markets and corporations are getting benefits of their environmental and social initiatives (Camilleri, 2021). The investors are keen in choosing between sustainability-active and inactive firms' stocks. The relationship between CSR and financial performance is weak among the developing economies (Wang et al., 2016). However, a positive relationship between CSR and financial performance has been reported in developing economies (Hossain et al., 2015; Bhattacharyya & Khan, 2023; Ma et al., 2023). This study provides key insights into the relationship between CSR and financial performance of firms and especially the relationship of different categories of CSR. Rest of the paper is organized as follows: section two reviews the literature, section three presents methods, section four highlights key findings while section five concludes the study followed by the references of the studies cited.

1. Literature Review and Hypotheses Development

Theoretical Background

Freeman (1984) introduced stakeholder theory as an ethical framework for businesses, emphasizing the need to balance the interests of shareholders, consumers, employees, suppliers, the community, and the environment. This contrasts Friedman (1970) shareholder theory, which prioritizes shareholder value. The stakeholder theory since has remained a key motivation for researchers to explore organizational CSR involvement. The stakeholders' theory has attracted a stream of research for investigation of CSR (Donaldson & Preston, 1995; Carroll, 1991; McWilliams & Siegel, 2001).

The Resource-Based View (RBV) theory emphasizes the strategic value of CSR, suggesting that investing in responsible practices can provide firms with competitive advantages, like better employee morale, a stronger reputation, and more devoted customers and productivity. (Barney,

2005; Wernerfelt, 1984). The CSR involvement may become a valuable resource with the firms that provide a strategic edge.

Institutional theory has remained a major debate among the researchers for its depth to include CSR in its domain. Institutional theory examines how organizations conform to societal norms, rules, and expectations (Campbell, 2007). The institutional perspective provides insights into convergence in the organizations' practices and organizational behaviour that are influenced by external factors like laws and regulations, industry practices and societal norms (Meyer & Rowan, 1977). The institutional pressure may resemble and may bring resemblance in the practices and strategies of the organizations (Frynas & Yamahaki, 2016). To conform to institutional pressures and to get legitimacy organizations try to adopt certain practices, strategies and bring similarities in their structures (Fernando & Lawrence, 2014). Organizations that follow a certain behavior according to institutional pressure get a reward through increased legitimacy, access to resources, and survival competencies (Scott, 1987). There is a strong need of policies to encourage CSR promoting institutions in the developing economies that could add the states in promoting and inspiring the CSR disclosure and a resultant convergence of practices (Ali & Frynas, 2017). It can be argued that as result of CSR disclosure and awareness the companies in developing economies may improve financial performance. The outlined theories collectively contribute to understanding of CSR and provide valuable insights into the positive impacts it can have on firms' financial performance.

Empirical Literature on CSR and Financial Performance

CSR activity creates a win-win situation for the firms as it proves to be beneficial in terms of increasing their reputation and social value alongside the financial performance (Cherian et al., 2019). Cherian et al. (2019) analyzed 50, Indian manufacturing firms for the fiscal period between 2011 to 2017 and found that CSR had a positive and significant influence on financial performance. Alam and Tariq (2022) studied 76 non-financial Pakistani firms for finding a relationship between CSR and financial performance. They built CSR index on labor practices and decent work, community, human rights and customers on quality of reporting and used generalized method of moments (GMM) for finding a causal relationship. A positive and significant relationship between CSR and both the accounting and market based profitability measures was confirmed.

Habib et al. (2015) analyzed the effect of client concentration on CSR disclosures, including both government and business clients. The study compiled data from US firms spanning the period from 1991 to 2013. The results demonstrated a noteworthy positive correlation between corporate social responsibility (CSR) disclosures and the concentration of corporate customers. The study revealed that companies can better off financially by disclosing CSR information. In contrast, companies with a higher proportion of government customers disclosed lower levels of CSR. The study indicated that the relationship between CSR and idiosyncratic risk is influenced by customer concentration, suggesting that implementing CSR practices can help mitigate risk. Yang and Basile (2019) found a connection between brand equity (BE) and CSR initiatives. For the goal of gathering data, they chose 78 businesses between 2000 and 2014, and they then examined the data's random-effect. The findings showed that diversity and CSR-related governance have a favorable effect on brand equity

(BE) and employee-related CSR policies have a negative effect on brand equity (BE). CSR initiatives seemed to be paying off to the firms.

Albuquerque et al. (2012) found that by adopting corporate social responsibility (CSR) practices firms can differentiate their products from others and generate higher profits. The model argues that CSR reduces a firm's systematic risk, enhances its financial performance, and ultimately strengthens the firms. Coelho et al. (2023) shed light on how companies' financial performance relates to their CSR efforts. They explored whether directing company resources toward social, environmental, and governance challenges can create synergies that enhance business value and boost financial results, benefiting both the company and its stakeholders. They indicated that CSR has a direct effect on a company's financial performance, and this effect grows stronger as the company's environmental, social, and governance (ESG) scores increase. Mandl and Dorr (2007) established four CSR components, which they used to assess the CSR performance. Analyzing the data from 1991 through 2011, a total of 1,877 US enterprises were included in the sample. The findings demonstrated a considerable positive association between CSR and financial success in the majority of industries, however the intensity of the relationship varied by industry. The empirical findings suggested that company management's application of various CSR components impacts the financial performance of organizations in various industrial sectors. CSR is a strategic approach adopted by corporations to ensure their operations have minimal negative impact on the environment and society (Feng et al., 2022). Additionally, this study examines firms' reputation role like a moderator in the link between CSR with long-term business performance. They found that usually, organizations maintain their positive brand image via CSR which indirectly enhance their financial performance positively.

The literature also suggests a negative link between CSR and financial performance. Nollet and Evangels (2016) examined the link between corporate social performance (CSP) and corporate financial performance (CFP) using accounting and marketing performance measures. The linear model showed a negative association between CSP and return on capital. Nguyen et al. (2022) examined Vietnamese firms to find a relationship between CSR and financial performance between 2012 to 2017 and found that overall CSR scores were negatively related to financial performance and among the components environmental-CSR had a significant negative relationship with financial performance, society-CSR had significant positive but weak relationship with financial performance while economic-CSR had no impact on financial performance. Implementing environmental CSR initiatives can require significant investment and increased operating costs, which can reduce accounting profits (Nguyen et al., 2022). Based on the discussion we adapt the following hypothesis.

H₁: Environmental CSR practices have a positive and significant impact on financial performance of Pakistani listed firms.

H₂: Community CSR practices have a positive and significant impact on financial performance of Pakistani listed firms.

H₃: Customers CSR practices have a positive and significant impact on financial performance of Pakistani listed firms.

H₄: Employees CSR practices have a positive and significant impact on financial performance of Pakistani listed firms.

2. Methodology

Population and Sample

The sample for this thesis comprises non-financial companies publicly listed on Pakistan Stock Exchange (PSX). There are 402 listed non-financial firms¹ and these form the population for this study. Only those firms meet the purpose of the study that do report data on CSR and lie in the non-financial sector categories. A two-stage sequential sampling design relying on purposive and stratified sampling techniques has been used. First the entities have been specified which meet the purpose of the study and then they are held in the groups/strata. So a mix of purposive and stratified sampling techniques have been applied. There are a total of 37 sectors on Pakistan Stock Exchange. A total of 27 non-financial sectors (having at least 4 CSR-active firms) have been considered as a population for stratified sampling. Six of the financial sectors and four others were left out based on non-availability of the data. The study includes 4 firms from each strata of non-financial sectors based on descending order of the market capitalization. Finally, a total of 108 non-financial firms have been selected as sample of the study whose data were available for all the variables being studied.

Data Sources and Study Period

The data of the sample firms has been gathered for the period 10 years between 2011 to 2020. The reason for starting data span from 2010 is that the CSR general order was issued in 2009 by the Security & Exchange Commission of Pakistan (SECP). Before that a meager reporting on CSR exists among the Pakistani firms. The data has been collected from multiple sources including companies' annual reports, websites and data base. The data on CSR categories has been exclusively obtained from a local data base named Open Doors. The CSR scores on each category e-g environment, community, customer and employees were separately obtained. The data on financial variables such as ROA, ROE and Tobin's Q were obtained partly from paid versions and partly from annual reports (non-availability in the data base for some firms). The share price data for Tobin's Q has been gathered from Pakistan Stock Exchange. Similarly, the data on control variables such as firm size, board independence, board size and leverage has been calculated /obtained both from annual reports and data base.

Measurement of Variables

Financial performance is the dependent variable and is considered as both the accounting and market based measures. The internal efficiency of the firm is reflected in accounting based profitability while market-based profitability reflects markets' reactions to the firms' actions. Accounting based profitability has been assessed by obtaining ROA and ROE of the sample firms while market based performance is represented by Tobin's Q. Literature evidences usage of both the measures (Lo & Liao, 2021; Alam & Tariq, 2022).

The CSR is the core explanatory variable and it has been assessed through CSR index of the non-financial listed firms. This study relies on a database for CSR scores. The scores on four categories of

¹ There are 526 total firms listed on Pakistan Stock Exchange up to February 2023 and population of this study excludes 20 commercial banks, 5 close end mutual fund, 30 insurance companies, 32 investment banks, 8 leasing companies, and 29 modaraba companies (<https://dps.psx.com.pk/progress-report>).

CSR e-g environment, community, customers and employees have separately been obtained. Open Doors assesses CSR metrics from listed firms' reported longitudinal data by considering environmental, community, customers and employees related reported indicators.

Table 3.1: Definition of Variables

Variable	Definition of Variable
ROA	Measured by dividing net income to total assets.
ROE	Measured by dividing net income to shareholders' equity.
Tobin's Q	Measured by (Mkt capitalization + Book value of debt)/Replacement cost of assets)
CSR_Env Index	Assessed as environmental index of CSR containing environmental indicators.
CSR_Comm Index	Assessed as community index of CSR containing community indicators.
CSR_Cust Index	Assessed as customer index of CSR containing indicators relating to customers.
CSR_Emp Index	Assessed as employees' index of CSR containing indicators relating to employees.
Firm_Size	Measured by taking natural log of total assets.
Board_Ind	Measured by dividing the number of independent directors to total directors.
Board Size	Measured by taking natural log of total number of directors on board.
D/E Ratio	Measured by dividing total debt to total equity.

Data Analysis Techniques

The data has been analyzed using the descriptive statistics, correlation and regression analysis. Outliers were existent in the data. Before the data analysis outliers in the data have been detected using box plot technique and data has been winsorized on 5th percentile to avoid the loss of data (Alam & Tariq, 2023). Descriptive statistics have been applied to know the data characteristics, correlation analysis to find the degree of relationship and regression analysis to have a robust results of the relationship among the variables. The statistical software STATA has been used for analysis of the data.

Econometric Equation

The following econometric equation has been used for obtaining results of the regression analysis where CSR categories are explanatory or independent variables and financial variable like ROA, ROE and Tobin's Q are explained or dependent variables. The control variables have also been specified in the equation.

$$CFP_{i,t} = \alpha + \theta_1(CSR_Env\ Index)_{i,t} + \theta_2(CSR_Comm\ Index)_{i,t} + \theta_3(CSR_Cust\ Index)_{i,t} + \theta_4(CSR_Emp\ Index)_{i,t} + \theta_5(Firm_Size)_{i,t} + \theta_6(Board_Ind)_{i,t} + \theta_7(Board_Size)_{i,t} + \theta_8(D/E)_{i,t} + \epsilon_{i,t} \quad (1)$$

3. Results and Discussion

4.1 Descriptive Statistics

The descriptive statistics aims to summarize and characterize the key characteristics of the research data. Table 4.1, presents the descriptive statistics of the dependent and independent variables. The descriptive statistics provide information on the variables' standard deviation, mean, number of observations, maximum, and minimum values.

Table 4.1: Descriptive Statistics

Variables	Mean	SD	Min	Max
CSR_Env Index	5.781	3.873	0.000	14.000
CSR_Comm Index	2.453	1.312	0.000	6.000
CSR_Cust Index	2.726	1.693	0.000	5.000
CSR_Emp Index	4.461	2.292	0.000	13.000
Board_Size	8.461	1.851	5.000	18.000
Board_Ind	0.223	0.152	0.000	0.857
Firm Size	16.367	1.667	8.009	18.971
Tobin's Q	1.666	1.188	0.655	5.421
D/E Ratio	1.351	1.611	-2.201	5.561
ROA	0.068	0.078	-0.064	0.225
ROE	0.159	0.188	-0.188	0.637

Source: Authors' calculation

The mean value of environmental CSR is 5.783. The minimum value is zero that shows that some firms do not invest in environmental causes. The maximum value is 14. The mean value reveals that on average sample firms score 5.783. The sample firms score 2.453 in community CSR and 2.726 in customers CSR which is lower than environmental and employee CSR. This reveals that Pakistani firms invest higher amount in environmental and employee CSR. The minimum value is zero in all the four categories that shows that some of the sample firms do not invest in CSR activities.

The mean value of board size is 8.461 which shows that sample firms have optimal board containing approximately 8 members. The mean value of board independence is 0.223 which reveals that 22% of board members of the sample firms are independent. The average size of the sample firms is closer towards maximum which depicts that sample is dominant by large firms. The mean value of Tobin's Q discloses that; sample market value exceeds the book value by 66.55% as evident from the mean value which is 1.6655. The sample firms are financed by moderate level of debt as depicted by mean value of leverage. The average ROA is 0.0688, showing that the companies in the sample earn approximately 7% on their assets. Similarly, the average value of ROE is 0.1597, depicting that sample firms earn 16% on their invested capital.

4.3 Correlation Analysis

Correlation analysis provides a thorough summary of the pairwise correlations between variables, which aids in identifying trends and connections between the variables being studied. Table 4.2 shows the correlation matrix. There is positive correlation between ROA and environmental CSR and relationship is significant at 1% confidence level. Similarly, the coefficient of correlation between community CSR and ROA is 0.119 and achieved statistical significance with a confidence level of 1%. The coefficient of correlation between ROA and customer CSR is 0.097, significant at 5% confidence level while the coefficient of correlation between ROA and employees CSR is 0.080, statistically significant at 10% confidence level. The correlation shows; corporations with greater ROA have higher CSR activities, while corporations with higher CSR activities have higher ROA.

The correlation coefficient between ROA & board's size is positive and statistically significant at 10%. It reveals that large firms with large board have higher ROA or vice versa. The correlations between ROA and firm's size is also positive and significant at 1%. This means that large firms have higher

ROA. While the coefficient correlation between ROA and leverage is -0.202 that is negative but statistically significant at 1%. The negative relationship between ROA and leverage reveals that firms with higher leverage have lower ROA.

Table 4.2: Correlation Matrix

Variable s	CSR_Env Index	CSR_Comm Index	CSR_Cust Index	CSR_Emp Index	Board_Size	Board_Ind	Firm_Size	Tobin's Q	D/E Ratio	ROA	ROE
CSR_Env Index	1.000										
CSR_Comm Index	0.712* **	1.000									
CSR_Cust Index	0.744* **	0.653** *	1.000								
CSR_Emp Index	0.627* **	0.720** *	0.605* **	1.000							
Board_Size	0.242* **	0.240** *	0.236* **	0.211* **	1.000						
Board_Ind	-0.030	0.042	0.020	0.021	0.027	1.000					
Firm_Size	0.220* **	0.188** *	0.185* **	0.119* **	0.258** *	0.094**	1.000				
Tobin's Q	0.183* **	0.190** *	0.168* **	0.137* **	0.032	-0.009	-0.063	1.000			
D/E Ratio	0.061	0.175** *	0.104* *	0.131* **	0.244** *	0.074*	0.169* **	0.091* *	1.000		
ROA	0.089* *	0.119** *	0.097* *	0.080* *	0.068* *	0.011	0.182* **	0.484* **	0.202* **	1.000	
ROE	0.065	0.012	0.004	0.022	0.120** *	-0.083*	0.108* *	0.447* **	0.273* **	0.617* **	1.000

Note: The table reports the coefficient of correlation between response variables & explanatory variables and between explanatory variables. The shaded area in the table represents the correlation between response & explanatory variables. The coefficient of correlation is based on a sample of 110 firms listed on Pakistan Stock exchange for the period of 2011-2020. ***, ** and * represent statistical significance at 1%, 5%, and 10%, respectively.

Source: Authors' calculation

The coefficient of correlation between return ROE and CSR categories (environmental, community, customers, and employees) are positive but the relationship is statistically insignificant. Similarly, the correlation of coefficient between ROE and board's size is 0.120 and the relationship is statistically significant at 1% confidence level. Large firms have higher ROE or firms experience higher ROE experience higher growth. While there are negative correlations between ROE and board independence and the relationship is significant at 1%. The correlation coefficient between ROE and leverage is negative at a 1%. This indicates that highly leveraged firms tend to have lower ROE.

Tobin's Q is a market-based measure of an organization's financial success. The correlation results reveal that there is a positive and substantial link between Tobin's Q and CSR activities. Tobin's Q and environmental CSR have a coefficient correlation of 0.183, and the association is statistically significant at 1% confidence level. The findings indicate a positive relationship between firms engaged in environmental CSR and high market value (Tobin's Q). Additionally, there is a significant correlation coefficient of 0.190 at the 1% confidence level between Tobin's Q and community CSR. It reveals that firms listed on Pakistani firms with high investment in community CSR have high Tobin's Q. The correlation coefficient between customer CSR & Tobin's Q is 0.168, and the relationship is statistically significant at 1%. Customer CSR and Tobin's Q move in same direction which reveals that firm's investment in customers CSR are valued by markets. In the same way correlation coefficient between employees CSR and Tobin's Q is 0.137 and significant at 1%. Firms invest more on employees CSR have higher Tobin's Q or firms with high Tobin's Q invest more on employees CSR. The results reveal a higher coefficient of correlation between the categories of CSR. The higher correlation between two variables leads to multicollinearity. But in this study none of the variables with higher correlation have been used in the same model in the regression analysis.

4.4 Regression Analysis

In order to get reliable results regression analysis has been applied. Regression analysis is based on several assumptions to ensure the validity and reliability of the model's results. One assumption is absence of multicollinearity which assume that the independent variables do not have a substantial correlation. Multicollinearity can lead to imprecise coefficient estimates and difficulties in interpreting the contribution of individual variables. Other assumption is homoscedasticity which require that variance of the error is constant across all level of the independent variables. If there is heteroscedasticity in the regression model it can affect the efficiency of estimates and the validity of statistical test.

The results show that variance inflation factor (VIF) is 1.87 which is below 10 for all models. The value of VIF (1.87) reveals that there is no multicollinearity amongst the independent variables. To examine the heteroscedasticity, the Breusch-Pagan Test has been applied. The p value of the Breusch-Pagan Test is 0.05 for all regression models. There are chances that heteroscedasticity exists, and therefore the all models are treated and the results are presented as robust to heteroscedasticity. The regression results are presented in table 4.3.

Table 4.3: Regression Analysis (CSR and Financial performance)

Variables	Model 1 ROA	Model 2 ROE	Model 3 Tobin's Q
Intercept	-10.693***	-15.603**	232.673***
CSR_Env Index	-0.193*	0.263	2.287
CSR_Comm Index	0.956***	0.032	14.831***
CSR_Cust Index	0.216	-0.997*	3.865
CSR_Emp Index	-0.013	0.284	-1.885
Board_Size	0.250*	1.693***	1.561
Board_Ind	0.030	-8.710**	2.959
Firm_Size	0.944***	1.481***	-7.390***
D/E Ratio	-1.329***	-3.919***	-8.353***
Adjusted R-squared	0.1111	0.136	0.066
Prob. > F-Statistics	0.0000	0.005	0.0001
No of Observations	912	912	908
Variance Inflation Factor (VIF)	1.87	1.87	1.87
Breusch Pagan Test (p-value)	0.000	0.000	0.000

Note: *** Significant at 1% level, ** Significant at 5 % level, * Significant at 10% level
calculation

Source: Authors' calculation

The regression results show that environmental CSR activities negatively affect ROA assets, but positively affect ROE as well as Tobin's Q. But only ROA is statistically significant at the 10% level. The negative impact of environmental CSR on firm's ROA reveals that investment in environmental CSR exceeds cost and hence reduce profitability (Nirino et al. 2020). The results show that community CSR has a positive impact on ROA and the result is statistically significant at 1%. Similarly, Tobin's Q is positively affected by community CSR and the relationship is statistically significant at 1%. This means that firms' investment in community CSR experiences higher profitability as community pay back in terms of loyalty to the product. The community CSR also send positive signals to the market as evident from impact on Tobin's Q value. The results are in accordance with earlier studies such as Mahmood et al. (2020). The customers CSR has negative impact on ROE and the relationship is significant at 10% confidence level. But the customer CSR has positive and insignificant impact on ROA and the Tobin's Q. The plausible explanation for this negative impact on ROE lies in extra cost involved in increasing customers CSR activities. Employee CSR had no statistically significant influence on ROA, ROE, or Tobin's Q, which is consistent with prior research, showed zero link between CSR & business performance (Szegedi et al., 2020).

ROA and ROE are favorably influenced by board size, and the results are statistically significant at 10% and 1%, respectively. These findings are consistent with earlier research, such as Nwoku et al., (2019) conducted studies on 34 countries and confirmed that board size positively affected firm's financial performance. While board independence negatively affects firm's performance and the relationship is statistically significant at 5%. It can be inferred from the findings that independent directors in Pakistan do not contribute to firm's performance and they are appointed for sack of

independence. The result is consistent with earlier studies such as Garg (2007) who confirmed that board independence inversely affects firm's performance. At a 1% confidence level, the firm's size has a positive and statistically significant influence on ROA and ROE. Large firms in emerging economies, such as Pakistan, tend to have higher returns on their assets and equity. Previous studies conducted in the Pakistani market have also reported similar findings (Nazir et al., 2021).

The Tobin's Q, a market-based measure of financial performance, is negatively influenced by the size of the firm. The large firms are perceived inefficient by market and size of firms send bad signals to the shareholders. The potential investors or shareholders prefer to invest in the share of small firms instead larger firms (Ishaq et al., 2021). The leverage of the firms has a negative impact on ROA and the relationship is statistically significant at 1%. Firms with high leverage have cash out flow in shape of interest. Similarly, the ROE is also negatively affected by firm's leverage and the relationship is significant at 1%. It reveals that firms listed on Pakistan stock exchange are unable to gain benefits from borrowings. High leveraged firms are not valued by shareholders in market as evident from the impact of leverage on the Tobin's Q. Similar results are documented by Kanoujiya et al. (2023) who examined 165 non-financial firms of Bangladesh.

4. Conclusion

The study aimed at finding the relationship between CSR categories and financial performance of the firms. It investigated the effects of environmental, community, customer, and staff CSR on the financial performance of non-financial firms listed on the Pakistan Stock Exchange (PSX) from 2011 to 2020. Data on CSR and financial and control variables were mainly taken from developed data base. From regression results, it is evident that the impact of CSR activities on firm's performance is inconsistent. The regression results showed that environmental CSR negatively affects firms' ROA leading to the rejection of the hypothesis H₁. Installing new pollution control equipment or implementing energy-efficient practices can require capital investments that may not immediately generate returns. In some cases, environmental CSR initiatives may be required by law or regulation, which can increase compliance costs and reduce accounting profits. Nguyen et al. (2022) called these environmental protection costs as a marked burden for companies in developing economies. Community CSR has a positive impact on firms' ROA and Tobin's Q, which reveal that it affects both accounting and market based measures of financial performance. The positive impact lies in the fact that firms' engagement in community CSR initiatives can enhance its reputation among customers, investors, and other stakeholders (Akpan & Oluwagbade, 2023). This can lead to increased loyalty, trust, goodwill and reputation. The discretionary income spent by the segments of society on firms' product and services results in increasing net profits and higher accounting based financial performance. The positive and significant relationship of community CSR with Tobin's Q is attributed to the good signals it sends to the stock markets and receive attraction of potential shareholders. This leads to the acceptance of hypothesis H₂.

A positive but insignificant relationship between customer CSR and ROA is reported. The results are also similar in case of Tobin's Q. While the relationship between customer CSR and ROE is negative. The customers are indifferent towards the CSR activities of the sample firms and profitability is not sensitive to it. Similarly, shareholders do not value customers CSR and unable to affect the Tobin's Q

of the sample firms. Hence, the H_3 cannot be accepted. Employees CSR activities have insignificant impact on firm's performance in Pakistan and findings of the study rejects the hypotheses H_4 for the sample firms. Engaging in employee CSR initiatives may not be well-received by all stakeholders, such as shareholders or customers, who may view them as unnecessary or a distraction from the firm's core business activities. This indifferent reaction is less likely to affect the firm's financial performance. The results lead to the rejection of hypothesis H_4 .

The results have implications for the management and board members that quality disclosure of CSR activities in annual reports are beneficial to the firms. The study suggests that management should disclose their CSR activities in annual reports and websites to receive loyalty from society. Although, the environmental CSR practices do not enhance profits but board members should have preferred CSR activities that have friendly environment, such as reducing carbon emissions or improving waste management practices. The policy makers are recommended to oversee the environmental hazards prevail in company practices and encourage environmental CSR practices irrespective of their impact on firm's financial performance. The customer and employee CSR activities do not have significant impact of financial performance of firms. This can be attributed to the lack of awareness among consumers and other stakeholders. The management and board members are required to report fair customers and employee practices to gain stakeholders' support. The policy makers need to enhance efforts to spread awareness about the CSR activities performed by the firms.

Limitations and Future Research Directions

There are certain limitations of the study. The study only analyzed the non-financial firms. Future research can consider financial sector listed firms. The study is also limited to the Pakistani firms only and future studies can include other emerging economies to get more reliable and generalized results. Another limitation of the study is the time horizon which is limited only to 10 years. Longer term time horizon for data collection will provide more useful results on the relationship between CSR and firms' financial performance. The study only employs pooled OLS regression on the panel data for 10 years. To address methodological limitations, future research should employ alternative methodologies such as a choice between fixed and random effects models or a GMM to examine the influence of CSR on firms' financial performance to obtain more robust results.

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