Physical Education, Health and Social Sciences

https://journal-of-social-education.org E-ISSN: 2958-5996
P-ISSN: 2958-5988

The Impact of Corporate Social Responsibility on Firm's Financial Performance: Evidence from the Manufacturing Sectors of Pakistan

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DOI: https://doi.org/10.63163/jpehss.v3i2.496

Abstract

This research investigates the impact of Corporate Social Responsibility (CSR) on the financial performance of manufacturing firms listed on the Pakistan Stock Exchange (PSX). The study focuses on three key financial indicators: Return on Equity (ROE), Return on Assets (ROA), and Earnings Per Share (EPS). Secondary data were collected from annual reports of 36 firms across five major sectors: Cement, Pharmaceutical, Automobile, Textile, and Fertilizer. The data were analyzed using SPSS to determine the statistical relationship between CSR activities and financial performance. The findings indicate that CSR has a significant positive impact on the financial performance of the firms studied. The results of the study are followed by several recommendations which are necessary for the enhancement of social responsibility of the organizations to enhance the financial performance. Based on these results, the study recommends that firms integrate CSR initiatives into their strategic planning. Specific suggestions include investing in educational development by establishing schools, colleges, and endowment funds for higher education, thereby enhancing long-term social and financial outcomes.

Key words: Corporate Social Responsibility (CSR); Firm Financial Performance; Manufacturing Sectors, Return of Assets (ROA), Return on Equity (ROE), Earning per share (EPS)

Introduction

CSR is a business model in which firms make deliberate attempts to work to upgrade their society's prosperity and ecological quality (Javed, Rashid, Hussain, & Ali, 2020). The standards of CSR studies deal with responsibilities towards personnel (human resources enhancement), clients (moral advertising), climate (natural manageability), and local areas (social improvement and social prosperity) (Khan, Razzaq, Yu, & Miller, 2021; Ye, Kueh, Hou, Liu, & Yu, 2020).

CSR become a major component in general processes of business that contributes to the accomplishments of goals for development of human being by offering various activities linked with economic, environmental and social well-being. Numbers of organizations perform actively in their societies for their employees and environment, but they do not get the required appreciation from the society because their CSR activities are not communicated in a well behaved manner. In reporting on companies, there are various strategic benefits' efforts of social responsibility; i.e., industry-level CSR interfere and own-firm CSR activities are recognized as energy to firm status (Lloyd-Smith & An, 2019).

Corporate social responsibility (CSR) has recently gained traction in Asia, specifically in Pakistan. CSR encompasses a variety of issues, including ethics, social responsibility, health, governance, and environmental sustainability, which differ depending on the country, region, interest group, or corporation. Many companies invest in community outreach, health initiatives, and other charitable activities to establish a positive public image. According to (Cowan & Guzman, 2020), CSR is an essential to addressing environmental degradation, global poverty, and social exclusion. It is a way for companies to demonstrate that they care about more than just profit-making by implementing socially responsible initiatives. As part of CSR, businesses must take responsibility for their impact on society and the environment beyond their financial performance. CSR can include actions that promote democracy, community development, human rights, and sustainable global growth (CBI, 2001a). Companies must adopt CSR standards to make a meaningful impact (Herrera & de las Heras-Rosas, 2020).

In the light of above the current study aims to assess the impact of CSR on the financial performance of auto-mobile industry of Pakistan. The correlation between CSR and firms' profitability has been the subject of much research. Even though numerous studies have been done, experts have continued to focus on the direct impact of CSR on a company's FP. However, the results of these studies are contradictory and need to be clarified (Lloyd-Smith & An, 2019) . Many studies have shown that CSR has a beneficial impact on FP (Cherian et al., 2019, Pearson, Ellingrod, Billo, & McSweeney, 2019).

Many corporate financial organizations do not contribute much to society however they have not improve their bottom line (Ben Abdallah, Saïdane, & Ben Slama, 2020) Research has been done on the effects of CSR on profit in industrialized nations, but little attention has been given to assess the same phenomenon in developing countries like Pakistan (Resmi, Begum, & Hassan, 2018).

The concept of CSR is new and needs to be more appreciated in Pakistan. In addition, most businesses operating in Pakistan are foreign multinationals, only a small percentage of local businesses have their own CSR strategy. CSR is still in its infancy in these nations, and its effects are not yet seen (Borges et al., 2018).

Despite growing evidence to the contrary, many conventional business leaders still assume that CSR spending will not have a positive impact on their bottom lines. To encourage corporate leadership to practice CSR needs lots of research, and to advise them the funding CSR initiatives is an investment that will boost the firm's reputation and, in turn, it's FP (Tien, Anh, & Ngoc, 2020). Although research studies have been conducted on CSR and financial Performance (S. Kim & Yoo, 2022; Resmi et al., 2018) however, these studies are in different geographical contexts and based on other industries. The current study, hence, aims to assess the impact of CSR on Financial Performance in manufacturing sectors of Pakistan through panel data. The financial performance is measured on three main determinants such as ROA, ROE and EPS.

The research questions of the research are given below;

i. Does Corporate Social Responsibility have an effect on the ROE of manufacturing firms in Pakistan Stock Exchange (PSX)?
ii. Does Corporate Social Responsibility have an effect on the ROA of Manufacturing firms in PSX?
iii. Does Corporate Social Responsibility have an effect on the EPS of manufacturing firms in PSX?

i. To analyze the effect of CSR on ROE of manufacturing firms in PSX.
ii. To assess the effect of CSR on ROA of manufacturing firms in PSX.
iii. To evaluate the effect of CSR on EPS of manufacturing firms in PSX.

The significance of this research comes in the fact that it will empirically analyze how CSR influences FFP (Firm Financial Performance) at the selected PSX-listed producer. This research will have a theoretical significance in a way that through using the Agency and Stakeholder theory, it has explained the phenomenon of CSR and its effect on financial performance in Pakistani context. Besides, it has not only provided new knowledge, but also new literature that will shed light on these topics. This research has societal ramifications, and its findings provide foundation for comprehending the significance of CSR efforts and the norms of acceptable social conduct.

Sustainable growth will be promoted, particularly for the Manufacturing business under investigation, since the influence of CSR on FFP will be made clear. This has aided policymakers in creating plans by merging economic and social factors. This research is designed to find the connection among CSR and monetary outcomes. Manufacturing companies' ROA, EPS, and ROE may provide light on whether or not corporate social responsibility contributes to their bottom line (ROE).

Literature Review

According to Cherian (2019) a company's "Financial Performance" is a function of its financial health and its capacity to execute on its strategy, business goals, and corporate responsibilities (Cherian et al., 2019). Financial planning can be explained in general way as a display of doing financial exercises, but in the extended definition, it relates with how much financial or money-related goals have been recognized by an institution (Jamil, M. N., Rasheed, A., & Mukhtar, Z. (2022). Furthermore, FP is the standard method of measuring the monetary results of corporate endeavors via the timely use of rules and methods, along with this, it has also been disclosed in a number of accounting and market-based measures, such as return on assets (ROA), earnings per share (EPS), return on equity (ROE), working benefit, net benefit, return on capital used, and price to earnings (P/E) (Shabbir, M. S., & Wisdom, 2020).

According to (M. Awan; Weller, 2020), CSR describes a company's efforts to meet its social, ethical, legal, and philanthropic responsibilities. Commonly, people think of corporate social responsibility as a company's charitable activities. There is a difference between CSR and philanthropy, however. According to (Khan et al., 2021; Weller, 2020), corporate social responsibility (CSR) focuses on a company's adherence to legal, economic, moral, and charitable requirements, whereas corporate social responsibility (CSR) focuses only on charity activities. As a result, it needs to be more accurate to equate CSR with social responsibility, and a few CSR studies will reclassify CSR based on its core notions.

Researchers have widely worked on the improvements in the organization in terms of its objectives as a primary liability of the firm to utilize its assets and to expand its benefits. Those who take this view further argue that CSR takes the form of external interference, violation of norms and regulations, assault, desecration of shareholder rights, and arbitrary seizure of owners' property and resources (Malik & Kanwal, 2018). Although, CSR was first described in the 1920s, the relationship between CSR and firm success has only recently attracted the attention of academics (Muhmad & Muhamad, 2021) and has been an active topic of study since the 1970s (Filatotchev, Ireland, & Stahl, 2022). Protection of the environment, fair trade, and employee well-being rate highly. These programs have the potential to significantly contribute to resolving social and environmental challenges, and the organizations join freely. Corporate social responsibility (CSR) demonstrates a company's intention to use its resources (both financial and human) for the public good (Mousa & Othman, 2020). Advocating for human rights, social reporting, ethical trade, socially responsible investment, and empowering people, communities, and workers are all areas in which CSR may be seen to provide a response (Maury, 2022, Okafor, A., Adeleye, B. N., & Adusei, M. (2021).

Corporate social responsibility (CSR) is when a company acts responsibly toward the community in terms of the law, economics, ethics, and charity (Kabeyi, M. J. B. (2020). CSR is often understood to refer to a company's philanthropic efforts. There is a difference between CSR and philanthropy, however. While social contribution is an important part of corporate social responsibility, CSR comprises a company's legal, economic, ethical, and philanthropic commitments (Mughal, Y. H., Jehangir, M., Khan, M., & Saeed, M. (2021). As a result, it needs to be more accurate to reduce corporate social responsibility to only being socially responsible; instead, CSR will be reconceived in light of the principles developed in the many existing CSR studies.

The linkage between both terms might be unbiased, positive, or negative, but there is no agreement among analysts (Achmad & Yulianah, 2022). There are three ways of thinking tracked down in the literature on CSR. Among them, the first way of thinking tracked down a true relationship between CSR and FP (Filatotchev, Ireland, & Stahl, 2022). and proposed investment in CSR activity in light of the fact that CSR works on the worth of firms. The second group reported a negative association between CSR and FP and embraced the idea of expanding the organization's benefit by utilizing its resources. They do not support the concept of effective financial planning assets based on CSR (Ben-Amar, Francoeur, Marsat, & Sijamic Wahid, 2021), while the third way of thinking estimated a neutral association between CSR and FP recorded an incidental relationship and advised researchers to consider numerous different factors that can prevent them from reaching a safe conclusion (Aslaksen, Hildebrandt, & Johnsen, 2021).

Abdullah, N., Hadi, N. U., & Dana, L.-P. (2018). examined the correlation between CSR and FP of listed commercial banks in the United States and concluded a significant relationship between CSR and financial success. The authors of this research looked at the effect CSR has on the bottom line for Pakistani manufacturers between 2012 and 2022. Information collected will be secondary in nature and will be gathered from the annual reports of the Manufacturing companies; the aforementioned reports' variables, including return on assets, earnings per share, return on equity, and CSR, will be utilized. We used a regression model to analyze the data, and our findings suggest a favorable correlation between CSR initiatives and key metrics of financial success at Pakistani manufacturers. The same topic is explored by (Ang et al., 2022). Who, between 2012 and 2022, looked at how CSR affected the bottom lines of a sample of publicly traded Pakistani companies. The research used variables such as CSR expend, ROA, ROE, and EPS, all of which were gathered from the companies' annual reports. Analysis of the data using regression and correlation tests revealed a positive association between CSR and both net profit and net profit margin, and a negative relationship between CSR and total assets. According to the research, CSR efforts don't significantly affect profits. (Mousa & Othman, 2020) is another example. Fifteen companies listed on the Pakistan Stock Exchange were used to examine the link between corporate social responsibility and financial performance. Based on the findings of a model of correlation analysis, it can be concluded that CSR practices have a beneficial impact on company profits.

Meanwhile, (Blasi et al., 2018), identified a relationship between CSR and CFP. Based on this correlation, it is clear that, beyond a certain point, a company's CSR spending will have a negative impact on its bottom line. The U-shaped link between CSR and CFP discovered by (Long et al., 2020). on the other hand, is indicative of a "too little-of-a-good-thing" impact (i.e., the upfront expenditures of CSR outweigh the long-term benefits). Some scholars have expressed worry in the existing literature about these contradictory results. According to a meta-analysis conducted by (Barauskaite & Streimikiene, 2021). The firm social responsibility benefit the corporate financial position.

The agency theory is described by (Javeed & Lefen, 2019). Managers are urged to engage in earnings management while presenting financial statements on the basis of agency and principal relationships. They are stated that the firm's executive involves themselves in corporate charities, donation, and corporate philanthropic decision to improve their social reputation, personal image, and prestige (Masturina, A. A., & Marsono, A. D. (2023). stated that managers are agents and shareholders are principals, according to a contract that agents act on the wealth maximization of shareholders. It's an agency problem if the managers neglect their responsibilities and engage in CSR at accumulated money of shareholders without their consent. A shareholder is more interested to receive their profit in dividend form instead of CSR.

Stakeholder theory

This theory expands our understanding of the corporation's place in society by paying particular attention to the several social subsets that shape commercial behavior. Employees, consumers, distributors, suppliers, social activists, rivals, NGOs, journalists, lawmakers, academics, local residents, and labor unions and governmental organizations are all examples of stakeholders. The theory centers on two main ideas. The first is a consensus among the company's constituents on a core set of values. Concerns about managers' responsibilities to the company's many stakeholders are also addressed (Freudenreich, Lüdeke-Freund, & Schaltegger, 2020).

Conceptual Framework

Independent Variable

Dependent Variable
Financial Profitability

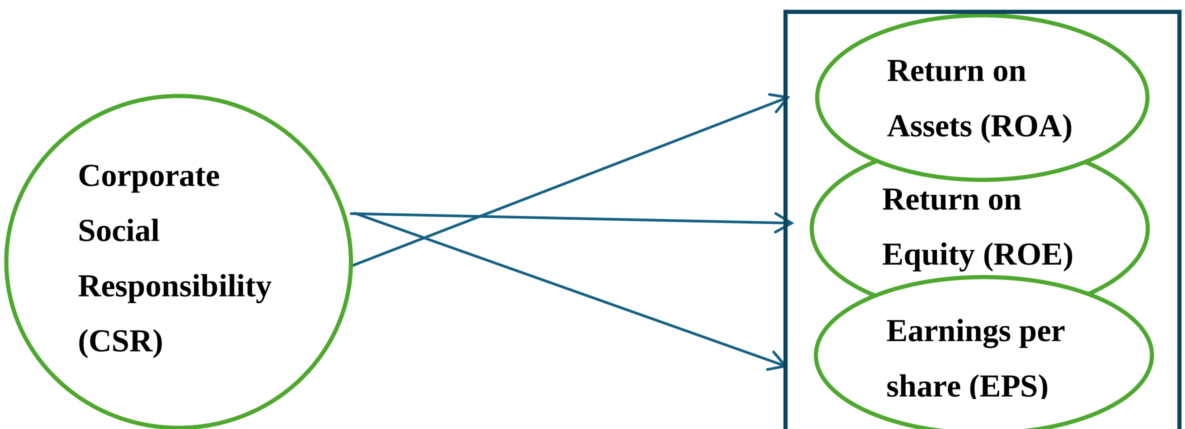

Fig.1 Source: (Resmi et al., 2018)

Control Variables

Leverage, Firm Size, Age

H_1: There is a significant effect of CSR on ROE of Manufacturing firms in PSX.
H_2: There is a significant effect of CSR on ROA of Manufacturing firms in PSX.
H_3: There is a significant effect of CSR on EPS of Manufacturing firms in PSX.

Research Methodology

Research design is a blueprint for carrying out a research study (Awaysheh, A., Heron, R. A., Perry, T., & Wilson, J. I. (2020). This study underlies a relational research design. Furthermore, the review will be completed over a particular timeframe. The decision for this design is premised on the fact that the review will include members drawn from a variety of manufacturing firms. Furthermore, the review will be completed over a particular timeframe. This study is concentrated on the effect of CSR activity on manufacturing firms' FP. That is for an extended period of time, from 2012 to 2022.

The research approach used in the study was deductive, generally quantitative in nature. An approach that is quantitative in nature is considered appropriate, as the major goal of the study is to find the correlation between FP and CSR. Moreover, in research for statistical figures, a quantitative approach is applied (Malik & Kanwal, 2018).

Research-based on quantitative study commonly involves numbers and statistical measures that help in elaboration between variables (Abebe, M. G. (2020). It is found that quantitative research is usually perceived as a research method that, through quantified and statistical results that are based upon reality tries to analyze the objectives in order to produce systematic information (Kurt, H., & Peng, X. (2021).

The survey method was used for data collection. Longitudinal research has been described as a research that is commonly used in business and management research (Oh, 2018, Nguyen, T., & Nguyen, C. H. L. (2020). In longitudinal analyses, researchers select a sample and then review again in at least one other session. Longitudinal studies can be separated into two most essential subgroups, i.e. cohort and panel studies (Blasi et al., 2018).

The time horizon for the current study will be longitudinal. As eleven years of data from 2012 to 2022 will be selected. This study uses a longitudinal research strategy pointed at investigating the connection between CSR and FP in PSX over the course of eleven years, from 2012 through 2022.

The population of this study is comprised of the five manufacturing sectors listed on the Pakistan Stock Exchange; the time span of this study will be 2012-2022. The cement sector, pharmaceutical sector, automobile sector, textile and fertilizer companies would be the population of the study. The data of these industries are listed on Pakistan Stock Exchange.

Sr no.	Firm	Description
1	Cement	Kohat , lucky , cherat , Dewan, Attock, Bestway
2	Pharmaceutical	Abbot, GSK, Hinoon, ICI, Sanofi, Searle,
3	Automobile	Nissan, Hino Pak, Atlas Honda, Toyota, Suzuki, MTL
4	Textile	Cresent, Gul Ahmad, Kohinoor, Mehmood, Nishat
5	Fertilizer	Engro, AHCL, FFC, FFBQ, FFC

The sample size depends on the availability of information of firms. In this study, the sample size will be comprised of 36 firms, Cement, Pharmaceutical, the Auto mobile, Textile and Fertilizer Companies. Secondary sources of data will be used i.e., the annual reports of the Manufacturing firms. The annual reports are available on the official websites of the firms and the Pakistan Stock Exchange.

The data was collected from Pakistan Stock Exchange and published annual reports of the Manufacturing firms from 2012- 2022.

3.6 Measurements of variables

i. Independent Variable

CSR was used as independent variable; intermediary use for it as pay rates and wages expenditure of employees, gift as well-being, health and schooling, and so on, workers' government assistance reserves. Intermediary utilized by (W. S. Kim, Park, & Lee, 2018).

ii. Dependent Variable

This study analyzed the effect of CSR on FP of firms, intermediary utilized for the FP is the return on assets (Bahta, Yun, Islam, & Bikanyi, 2021). They utilized a similar intermediary. ROA will be measured by net income divided by total assets (Bahta et al., 2021; W. S. Kim et al., 2018).

iii. Control Variables

The size of firms and the firm age were used as control variables of the review (D'Amato & Falivena, 2020). Size will be measured as estimated by (D'Amato & Falivena, 2020). Regular log of all out resources. Normal log of absolute resources is additionally utilized by (Dang, Li, & Yang, 2018). Responsibility to add up to resources is determined by all out responsibility's separated by all out resources (Yang, M., Bento, P., & Akbar, A. (2019). This will be used as a proportion of the capital construction of firms (Cho, S. J., Chung, C. Y., & Young, J. (2019).

The importance of CSR to a company's performance is also investigated. All the potential factors that affect the value of a company and are related to corporate social responsibility should considered. As a result, the trademark factors of companies to address any risks should be developed. Size (SIZE) and age (age) are two metrics that are focused on. SIZE is the natural logarithm of revenues for a company i in year t, and age Number of year after Incorporation to date. CSR has been shown to have connections to company performance, liquidity, and size in previous research. The size of a corporation is a good predictor of corporate social responsibility (CSR), since a bigger firm would face greater external constraints (Deb, D., Gillet, P., Bernard, P., & De, A. (2022).

Table 1: Summary of the variables

The below table describes the variables; to investigate the impact of CSR on the FP of the Firm's, few studies have adopted this model's.

Category	Variable Name	Description
Independent Variable	Corporate Social Responsibility (CSR)	Health & Safety, Education, Environment, Community Welfare
Dependent Variables	a. Return on Asset (ROA)	Earnings before tax / Total Asset
	b. Return on Equity (ROE)	Earnings before tax / Number of Common Shares Outstanding
	c. Earnings per Share (EPS)	Earnings per Share before Tax
Controlling Variables	a. Firm Size in Assets (SZFA)	Logarithm of Total Assets
	b. Firm Age (AG)	Number of year after Incorporation to Date

SPSS would be used to examine the scale's properties and perform a regression analysis on the suggested model (SPSS). When applicable, statistical methods would be used in accordance with generally recognized assumptions in the field. Analysis methods including linear regression and correlation. All of the information has been entered into tables and examined in a systematic manner.

Regression Analysis

According to the nature of study and research objective, following econometrics model is applied to test the hypothesis:

$$\mathbf{FP_{it}=\beta 0+\beta 1CSR_{it}+\varepsilon_{it}}$$

To operationalize the research objective above regression equation is further divided into three equations respective to each proxy of FP.

a. ROA=f (CSR)

b. ROE=f (CSR)
c. EPS=f (CSR)
Where,
In this equation, FP stands for financial performance, ROA for return on assets, ROE for return on equity, and EPS for earnings per share stand in for the dependent variable, CSR for corporate social responsibility stands in for the independent variable, and stands for an error term. An effort to quantify the significance of a particular dependent variable's (often represented by Y) association with a number of independent variables' (X, Y, Z, etc.) (Known as independent variables). With the use of regression analysis, we were able to determine the exact percentage change brought about by each independent variable on manufacturing sector financial performance.

Results and Discussion

The chapter includes the data analysis collected from the Different selected Manufacturing sector in Pakistan. Besides, it also includes the results of the regression, correlations and descriptive statistics derived from the SPSS and then linked with literature.

Table No 4.1
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Education Benefits	308	0	1	.87	.337	-2.213	.139	2.916	.277
Health Safety	308	0	1	.85	.357	-1.977	.139	1.922	.277
ROA	308	0	36	10.41	7.292	.732	.139	.238	.277
ROE	308	0	120	21.46	16.291	2.061	.139	7.153	.277
EPS	308	0	201	24.72	32.381	2.926	.139	10.148	.277
Firm Size	308	21	26	24.03	1.042	-.158	.139	-.464	.277
Firm Age	308	22	134	55.39	25.273	1.180	.139	1.378	.277
Valid N (listwise)	308								

Table: 4.1 shows the results of descriptive statistics of the independent and dependent variables. The descriptive statistics of the dependent, independent and control variables are reported. The dependent variable earning per share and ROA and ROE used for to measure Profitability. The independent variable as a whole is corporate social responsibilities (Educational benefits and Health safety) and control variable such as Firm age and Firm size used. The total numbers of observations for measuring the variables was 308. The mean values of educational benefits is 0.87 and health safety is 0.85 respectively. While mean values of ROA, ROE and EPS are 10.41, 21.46 and 24.72 respectively. The mean value for firm size is 24.03 while the mean value for firm age is 55.39.

Table 4.2 shows the correlation matrix, which illustrates the degree of relationship among the variables used in the current study's models. Results indicate that education benefits have positive correlation with EPS, ROA and ROE whereas it has negative correlation with health safety (-0.162), firm size (-.258) and firm age (-.072). However, its correlations with EPS and firm age are insignificant, as indicated by the significance values. Furthermore, health safety has a positive significant and negative significant correlation with EPS and ROA respectively. It has an insignificant correlation with the remaining variables. Moreover, EPS has a negative and significant correlation with firm age (i.e., -.133) and positive and significant correlation with ROA and ROE i.e, 0.361 and 0.421 respectively. On the other hand, firm size and firm age have negative and significant correlations with ROE and ROA. Finally, ROA has a positive and significant correlation with ROE.

Table No 4.2
Correlations

		Education Benefits	Health Safety	EPS	Firm Size	Firm Age	ROA	ROE
Education Benefits	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	308						
Health Safety	Pearson Correlation	-.162**	1					
	Sig. (2-tailed)	.004						
	N	308	308					
EPS	Pearson Correlation	.078	.125*	1				
	Sig. (2-tailed)	.171	.028					
	N	308	308	308				
Firm Size	Pearson Correlation	-.258**	.064	.015	1			
	Sig. (2-tailed)	.000	.262	.788				
	N	308	308	308	308			
Firm Age	Pearson Correlation	-.072	.100	-.133*	.004	1		
	Sig. (2-tailed)	.210	.080	.020	.938			
	N	308	308	308	308	308		
ROA	Pearson Correlation	.165**	-.153**	.361**	-.134*	-.153**	1	
	Sig. (2-tailed)	.004	.007	.000	.018	.007		
	N	308	308	308	308	308	308	
ROE	Pearson Correlation	.156**	.064	.427**	-.037	-.244**	.726**	1
	Sig. (2-tailed)	.006	.260	.000	.516	.000	.000	
	N	308	308	308	308	308	308	308

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Determinants of Earning Per Share (EPS)
Interpretation and Discussion

Table 4.3. In this table health safety and firm age significantly affect EPS. Whereas, health safety has positive while firm age negatively affect EPS. Estimation output provided in table 6 indicates that this mode is overall highly significant at 1% level as represented by the F-value (3.67) with the corresponding significance level (0.006). The table 4.4 shows that p-value for educational

benefits is 0.086 while health safety has p-value of 0.008. EPS can be significantly impacted by a company's provision of health and safety measures. The relevance of health and safety in the workplace has been highlighted by several studies that have explored the relationship between health and safety financial performance (Yang, Wang, Bai, & Maresova, 2023).

Current study's results also indicate that education benefits has positive effect on employees' satisfaction and its coefficient significant at 10% level of significance. The provision of educational benefits can exert a substantial influence on EPS. Numerous academic investigations have been conducted to examine the correlation between educational advantages and job financial performance, shedding light on the CSR and financial performance of a company. (Szegedi et al., 2020) results are also supported the findings that contribution of CSR in terms of educational benefits may help to enhance the profitability of the form. It further stated that organizations who devote a portion of their income in charitable work such educational activities promote a sense of positive image in the consumers and resultantly they purchase their products as contributing to a social cause.

The ANOVA table 4.3 shows that F statistics value is 3.675 and the p= 0.006 which is insignificant at %5 level of significance however this value is significant at 10% level. Thus the model can be referred as overall significant in other words model weakly significant overall. The model given in equation (4.1) was estimated and the estimation results are provided in table 4.3.

$$\mathrm{EPS}_{\mathrm{it}} = \beta_1 + \beta_2 \mathrm{CSR}_{\mathrm{it}} + \mu_{\mathrm{it}} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (4.1)$$

Table 4.3 ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14895.286	4	3723.822	3.675	.006[b]
	Residual	306993.804	303	1013.181		
	Total	321889.090	307			

a. Dependent Variable: EPS

b. Predictors: (Constant), Firm Age, Firm Size, Health Safety, Education Benefits

Table 4.4 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-9.695	45.324		-.214	.831
	Education Benefits	9.735	5.658	.101	1.720	.086
	Health Safety	13.909	5.179	.153	2.686	.008
	Firm Size	1.004	1.805	.032	.556	.579
	Firm Age	-.181	.072	-.141	-2.495	.013

a. Dependent Variable: EPS

4.2 Determinants of Return on Equity (ROE)

4.2.1 Interpretation and Discussion

Table 4.5 displays the findings for the factors of return on equity. The findings show that education benefits, health safety, and firm age all have a significant impact on return on equity. Education benefits and health safety, for example, have a positive impact on return on equity, whereas company age has a negative impact. According to the estimation result in table 4.5, this mode is also overall and highly significant at the 1% level, as reflected by the F-value (7.59) and the associated significance level (0.000).

The table 4.6 shows that educational benefits and health safety have an insignificant value i.e., 0.007 and 0.041 which means CSR has not a significant value with ROE. According to a study by (Naz & Bill, 2022) the provision of educational benefits by a company to its employees can have an effect on the company's return on equity (ROE). Several studies have been conducted to investigate the relationship between educational benefits and firm performance, as well as the moderating influence of other factors. The provision of educational benefits to employees may contribute to increased financial performance, which can ultimately affect a firm's ROE.

A firm's provision of health safety to its employees can have an effect on the firm's return on equity (ROE). Several studies have been conducted to investigate the relationship between employee well-being, which encompasses elements such as health and safety, and firm success. (Ariesto Patria, 2021) defines employee well-being as the balance between employees' efforts and the income they receive. It implies that a lack of balance between these two aspects can contribute to low employee well-being. This indicates that if a company provides health safety measures to its employees, it can improve their general well-being, which in turn can improve their performance and, eventually, the firm's ROE. (Linus, 2022) study presents causal evidence on the relationship between workplace health and safety and the interests of firm owners. It contends that advances in workers' health and safety provision can raise firm costs. However, the emphasis of this research is not on the effect on return on equity (ROE), but on the interests of business owners.

There have been a number of studies looking at how a company's age affects its return on equity (ROE). Profitability, dividend policy, debt policy, business size, and the age of directors were some of the other variables studied as potential moderators of the association between firm age and ROE. For Indian government agencies, (Javed et al., 2020) developed a risk index and risk governance index. The study employed ROE as a proxy for firm performance and discovered that firm age had a significant negative effect on ROE. This shows that older enterprises may have lower ROE than younger firms. In contrast, (Anju Kalluvelil & Uma, 2022) evaluated the influence of internal control processes and firm characteristics on firm value in the Manufacturing Sectors. The study discovered that firm age had a significant positive effect on firm value, indicating that older firms have greater ROE. However, this study did not directly investigate the relationship between firm age and ROE.

The specified model for return on equity (ROE) is presented in equation (4.2) and the estimation results are provided in table 4.5

$$\mathrm{ROE}_{it} = \alpha + \alpha_2 \mathrm{CSR}_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (4.2)$$

Table 4.5

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7424.440	4	1856.110	7.595	.000[b]
	Residual	74049.791	303	244.389		

Total	81474.231	307

a. Dependent Variable: ROE
b. Predictors: (Constant), Firm Age, Firm Size, Health Safety, Education Benefits

Table 4.6
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.350	22.260		.914	.361
	Education Benefits	7.546	2.779	.156	2.716	.007
	Health Safety	5.209	2.544	.114	2.048	.041
	Firm Size	-.049	.887	-.003	-.055	.956
	Firm Age	-.157	.036	-.244	-4.421	.000

a. Dependent Variable: ROE

4.3 Determinants of Return on Assets (ROA)
4.3.1 Interpretation and Discussion

Table 4.7 shows the findings for the return on assets (ROA) factors. According to the findings, health safety and firm age affects ROA. With a 10% significance level, education benefits influence ROA. For example, education benefits have a positive impact on return on assets, whereas firm age and health safety have a negative impact. Finally, firm size has an insignificant effect on ROA.
The F-value (5.65) and corresponding significance level (0.000) indicate that this mode is also overall highly significant at the 1% level, as indicated by the estimation result in Table 4.7.

The table 4.8 shows that p-values for educational benefits and health safety are 0.56 and 0.42 which means educational benefits has a significant relationship with ROA while health safety has not a significant relationship with ROA. The influence of firm size on profitability can shed light on the possible implications of educational benefits on ROA. While this study did not expressly address educational benefits, it does imply that larger organizations may have greater resources to engage in employee development, including educational benefits, which may contribute to higher ROA. The working environment's health and safety rules can also have an impact on firm performance. While the influence of health and safety regulations on firm owners' interests is debated in the literature, some research argues that improvements in workers' health and safety measures can increase expenses (Linus, 2022). It is crucial to remember, however, that the specific influence on ROA will differ depending on the setting and sector. (Ehiedu & Imoagwu Chika, 2022) investigated the firm-specific variables and their consequences for the profitability of Nigerian listed oil and gas enterprises. A significant correlation between firm size and profitability was discovered in the study. This conclusion shows that larger enterprises in Nigeria's oil and gas sector may need to alter their criteria in order to boost their return on assets.

The model return on assets (ROA) is provided in equation (4.3) and the estimation output is provided in table 4.7.

$$\mathrm{ROA}_{it} = \gamma_1 + \gamma_2 \mathrm{CSR}_{it} + \epsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (4.3)$$

Table 4.7
ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1133.091	4	283.273	5.651	.000[b]
	Residual	15188.989	303	50.129		
	Total	16322.080	307			

a. Dependent Variable: ROA

b. Predictors: (Constant), Firm Age, Firm Size, Health Safety, Education Benefits

Table 4.8
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	28.848	10.081		2.861	.005
	Education Benefits	2.419	1.259	.112	1.922	.056
	Health Safety	-2.354	1.152	-.115	-2.044	.042
	Firm Size	-.683	.402	-.098	-1.701	.090
	Firm Age	-.038	.016	-.133	-2.377	.018

a. Dependent Variable: ROA

Conclusion and Recommendations

Conclusion

This study aims to investigate impact of CSR on financial performance of manufacturing firms. Specifically, it explored whether CSR activities influence key financial indicators: Return on Equity (ROE), Return on Assets (ROA), and Earnings Per Share (EPS). In line with these research questions, the objectives were to examine the effect of CSR practices on the ROE, ROA, and EPS of manufacturing firms.

The hypothesis was statistically tested and it was revealed that CSR has significant effect on financial performance of manufacturing firms.

Recommendations

Recommendations are considered to be a significant part of a research study. It serves the purpose of policy guidelines for all the relevant stakeholders.

i. Organizations should formally incorporate CSR into their strategic plans. A dedicated strategic planning committee should be established, comprising representatives from top, middle, and lower management levels.

ii. The results suggest that educational benefits are more strongly linked to ROA than other forms of CSR, such as health and safety initiatives. Therefore, firms should allocate more resources to education-related CSR programs.

iii. iii. Corporations are encouraged to enhance their contributions to education by supporting employees, society, and stakeholders through initiatives such as building schools, establishing colleges, and creating endowment funds for higher education.

Theoretical and managerial implications

This study contributes to the theoretical understanding of CSR's impact on firm performance by applying Stakeholder Theory and Agency Theory within the Pakistani context. The findings support and extend these theories by demonstrating their applicability in emerging markets.

So far the results offer practical guidance on formulating CSR strategies that can simultaneously enhance a company's public image and financial outcomes. Management teams can use these insights to design CSR programs that contribute to long-term shareholder value and sustainable business growth.

5.4 Limitations of the Study

Like all research, this study has limitations, which present opportunities for future investigation:
I. The sample size was relatively small, with a limited number of manufacturing firms included.
ii. SPSS was used for data analysis, which may not offer the same level of sophistication as tools like STATA or EViews for secondary data analysis.
iii. The study focused exclusively on financial performance and CSR in the manufacturing sector, excluding other industries.
iv. The data was limited to Pakistani firms, and no international comparison was made.

5.5 Future directions

i. The other sector companies should also be taken into account for future research studies. In this regard service sector organizations should also be considered such as Banks, telecommunications and airline industry.
ii. E Views or Minitab or STATA should be used by the future researchers for more sophisticated results.
iii. There should be a cross national study should be conducted by the future researchers in order to get more in-depth insight into CSR and firm financial performance.

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