Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6, 1799-1814
2025
Publisher: Learning Gate
DOI: 10.55214/25768484.v9i6.8242

Examining the influence of leverage, liquidity, and corporate social responsibility on the financial performance of Nifty pharma companies

Sumbul Javed[1], Firoz Husain[2], Moin Uddin[3*]
[1]Department of Business Management, Integral Business School, Integral University, Lucknow, India,226026; sumbul786javed20@gmail.com (S.J.).
[2]Department of Business Management, Integral Business School, Integral University, Lucknow, India, 226026; firoz1785@gmail.com (F.H.).
[3]Department of Finance College of Administrative and Financial Sciences Saudi Electronic University, Riyadh, Kingdom of Saudi Arabia,11673; m.uddin@seu.edu.sa (M.U.).

Abstract: The idea of CSR has sparked much discussion across several domains of corporate finance, particularly regarding its potential to enhance a company's financial performance. The main objective of this research is to illustrate the impact of leverage, liquidity, and CSR on the financial performance of Nifty Pharma companies over the ten years from 2014 to 2023. The research employed panel fixed effects regression analysis to examine the effects of CSR, leverage, and liquidity on key financial metrics, Return on Assets (ROA) and Return on Equity (ROE), while controlling for firm size and sales growth. The findings indicate a statistically significant negative impact of CSR on ROE, implying that CSR initiatives may not immediately improve shareholder profits in the short term within the pharmaceutical industry. Conversely, financial leverage and liquidity have consistent and statistically significant impacts on financial performance. The results highlight that proficient management of leverage and liquidity is essential for maintaining financial stability. Although CSR may provide long-term advantages, it sometimes lacks quick financial returns, particularly in emerging nations like India. Policymakers need to implement CSR incentives and regulatory frameworks. Companies must intentionally incorporate CSR while managing liquidity and leverage to improve sustainability and attract socially responsible investors.

Keywords: *Corporate social responsibility, Capital structure, Leverage, Liquidity, NIFTY pharma, Profitability, ROA.*

1. Introduction

In the current dynamic business landscape, organizations are progressively expected to achieve financial success while conforming to socially acceptable procedures. In India, this expectation has been formalized by the Companies Act, 2013, which requires eligible enterprises to allocate spending for CSR. The pharmaceutical industry is vital owing to its direct impact on public health, innovation, and ethical obligations. However, despite its visible role, CSR expenditures by pharmaceutical companies remain limited [1]. CSR is a framework in which companies incorporate social and environmental considerations into their commercial activities and engagements with customers and other relevant parties. Furthermore, addresses the stakeholder's expectations. It directly helps to enhance the goodwill of the company and also make an insightful contribution towards poverty reduction. In today's world, companies worldwide are anticipated to create shareholders' wealth while also demonstrating responsible behaviour towards society [2]. Researchers also claim that CSR may serve as a strategic business strategy and a potent marketing tool for establishing and maintaining a competitive edge [3]. CSR is today seen not just as voluntary charity but as a strategic need for sustaining competitiveness and public confidence. Researchers argue that CSR strengthens business reputation, strengthens

History: Received: 21 March 2025; Revised: 19 May 2025; Accepted: 22 May 2025; Published: 20 June 2025
* Correspondence: m.uddin@seu.edu.sa

stakeholder interactions, and may result in improved financial results [3]. Two major ideas support this perspective:

Stakeholder Theory posits that organizations achieve long-term advantages by catering to the interests of many stakeholders, including investors, consumers, regulators, and communities [4].

Legitimacy Theory asserts that CSR serves as a mechanism for organizations to attain societal legitimacy, therefore reducing conflict and fostering public confidence [5].

According to Ministry of Corporate Affairs, The Companies Act of 2013 has stringent CSR laws that mandate enterprises of a certain scale to comply. India has become the first nation to mandate CSR as a legal obligation. This CSR initiative aims to drive the country towards the attainment of sustainable development objectives and foster public-private partnerships in the process of changing India. CSR refers to the voluntary commitment of a corporation to conduct its operations in an ethical manner, according to legal standards, and actively engaging in initiatives aimed at enhancing the overall economy. In order to address socio-economic challenges such as malnutrition, poverty, and illiteracy, among others, and to foster greater engagement between the corporate sector and the development sector, the government introduced CSR under the Companies Act of 2013 [1]. Figure 1 explains the CSR expenditure done in India since 2014-2021.

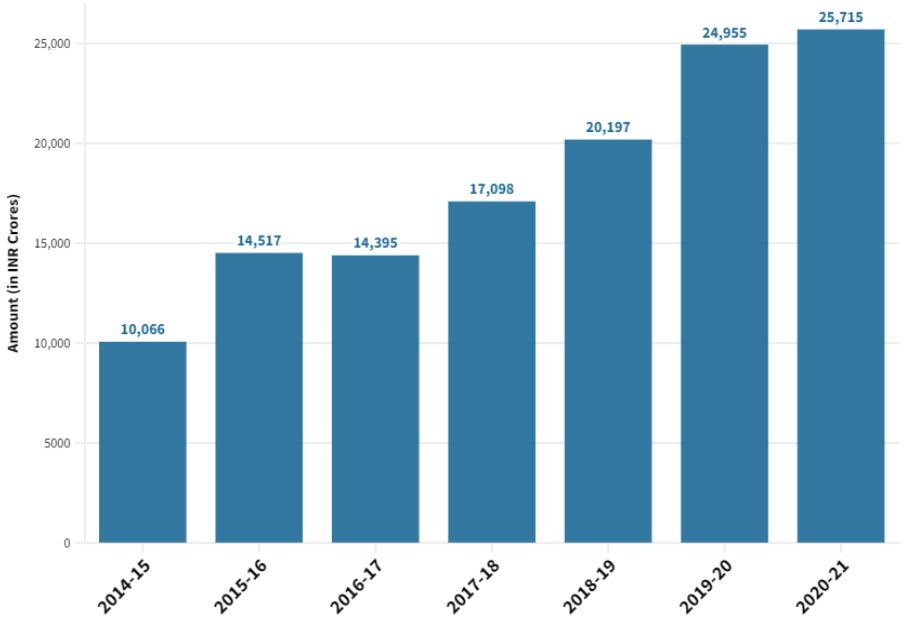

Figure 1.
CSR expenditure in India over the years (2014-15 to 2020-21) in INR crores.
Source: Extracted from MIS Reports-National CSR portal.

According to the National CSR Portal's MIS Reports, India's CSR spending from 2014–15 to 2020–21 is shown above in Figure 1. In 2014-15, the first year after the 2013 Companies Act's mandated CSR clause, overall CSR spending was ₹10,066 crores. The amount increased to ₹14,517 crores in 2015-16, reflecting corporates' favorable reaction to the new regulations. In 2016-17, spending decreased slightly to ₹14,395 crores. In subsequent years, CSR expenditure steadily increased, reaching ₹17,098 crores in 2017-18, ₹20,197 crores in 2018-19, and ₹24,955 crores in 2019-20. In 2020-21, the largest spending was ₹25,715 crores, despite the COVID-19 pandemic causing economic difficulties. This continuous expansion in CSR expenditure over the years shows a growing corporate commitment to social development and ethical business practices in India. This growth indicates an important financial

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

commitment that requires further examination of its effects on the profitability of businesses. This research examines CSR alongside with conventional financial indicators like as leverage and liquidity to evaluate their combined and individual impacts on financial performance.

India has distinguished itself as one of the pioneering nations in establishing a legal framework for CSR by enacting statutory duties. This framework obligates firms to report on their CSR activities, making India one of the early adopters of such a regulatory approach [1].

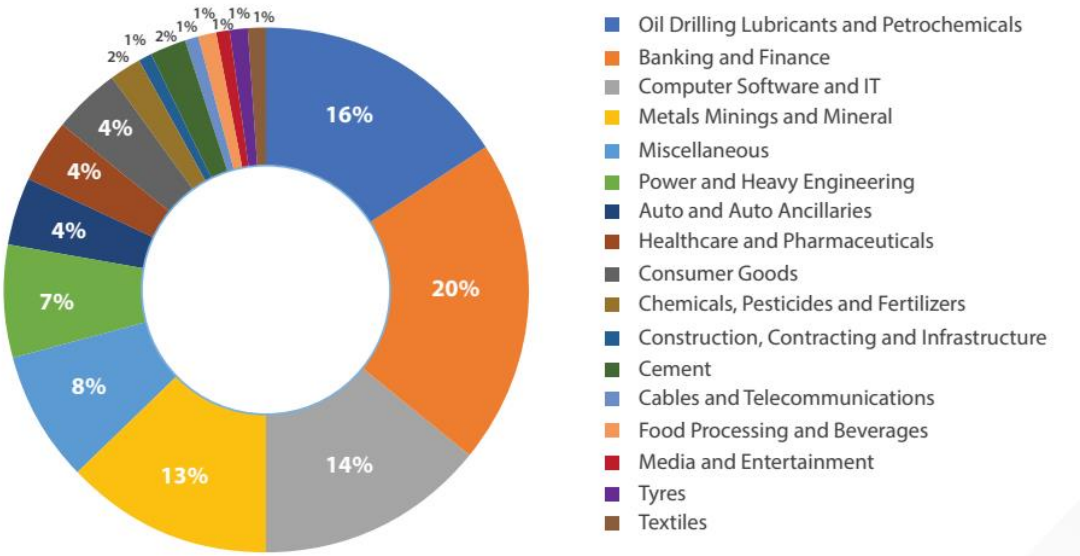

Figure 2.
Sector-wise share in Actual CSR spent in FY 2021-2022 in INR Cr.
Source: Extracted from INDIA CSR outlook report by CSR box.

Figure 2 shows 4% CSR was spent by Healthcare and Pharmaceutical sector in financial year (FY) 2021-22. As per the report by CSR BOX [6] in its annual outlook report, 2022, ₹ 483.16 crore was the prescribed CSR amount for the Pharmaceutical sector. Out of which, ₹435.06 crore was the actual CSR spent by the sector. Education and Health Care has been priority sectors in all the years which get more than 40% of the CSR Spending as shown in Figure 3. The alignment between business operations and CSR focus indicates that CSR initiatives in the pharmaceutical industry may fulfill both societal and strategic business objectives, which could influence financial results. This research investigates the influence of CSR, as well as leverage and liquidity, on the profitability of pharmaceutical firms in India. The adoption of CSR practises may yield several advantages for both the businesses and the communities they operate in. Firstly, the implementation of CSR may enhance the perceived attractiveness of a business's goods within society. Consequently, this can lead to increased profitability for the firm, so improving its financial performance. Furthermore, it helps to boost the reputation of firms, so functioning as a kind of social marketing for the organisation.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

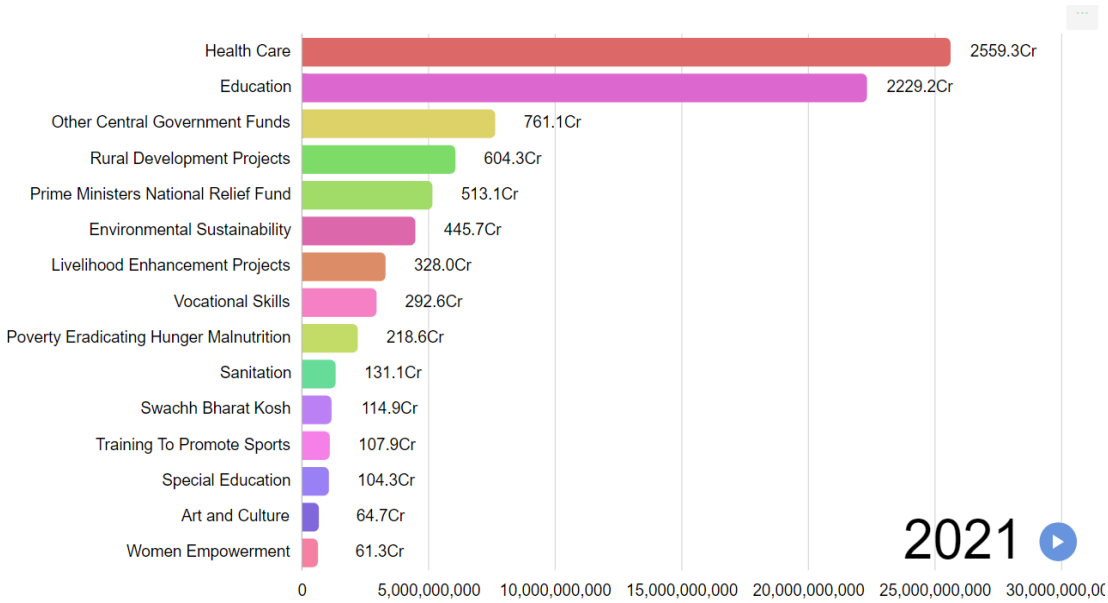

Figure 3.
CSR Spent Development Sector.
Source: Ministry of Corporate affairs.

This study pays special focus on Pharmaceutical Companies, these companies have significant effect for both the healthcare sector and the economy. Companies operating in this sector face many challenges, including market needs, research and development costs, and competitiveness. Hence, understanding the determinants that impact the prosperity of firms is of great importance to investors, analysts, and policymakers. This main motive is the study to examine the influence of leverage, liquidity, and CSR activities on the performance of Nifty Pharma companies.

The interplay between CSR, liquidity and financial leverage has implications for the financial performance of organisations. Specifically, CSR initiatives may help mitigate losses in market share for leveraged enterprises by reducing consumer and competitor resistance.

The paper is structured as follows:

Section 3 describes Data and Methodology, with sub-section 3.1 demonstrates the variables included in the study. Section 4 demonstrates empirical results and analysis. Section 5 details the conclusion of the study. Finally, Section 6 outline the limitations of the study.

2. Literature Review

The intricate relationship between a company's strategic decisions and its financial results has been a focus of much academic investigation. Theories including stakeholder theory, legitimacy theory, pecking order theory, institutional theory, and the triple bottom line theory offer a framework for comprehending the complex influences on corporate financial performance, especially in the pharmaceutical sector [7]. Understanding financial performance requires evaluating a company's ability to generate optimum returns from its assets and enhance shareholder value [8, 9]. In the evolving Indian financial market, marked by liberalization, increased global investment opportunities, and the introduction of new financial instruments, sustainable measures such as CSR, companies must strategically manage their financial frameworks to sustain competitiveness and attain enduring growth [10]. Moreover, CSR has seen significant growth over time, resulting in extensive study on the association among CSR and financial performance. Numerous academicians have strived to establish a correlation between a company's CSR initiatives and its financial performance. Ullmann [11] suggests that organisations with lucrative performance may show more inclination to bear the expenditures

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

associated with CSR, even if they are considered substantial expenses. Nevertheless, financially unprofitable companies are hesitant to engage in socially responsible endeavours [12].

2.1. Stakeholder Theory

The Stakeholder Theory is a significant theory that advocates for the implementation of CSR and its positive influence on Financial Performance. This idea proposes that corporations should take into account the concerns and welfare of all stakeholders, including workers, consumers, suppliers, communities, and shareholders, while making decisions. According to this theory, if a firm successfully meets the needs of stakeholders, it can generate profits, thereby linking CSR disclosure to financial performance [13]. Stakeholder theory asserts that a firm's performance depends on the successful management of interactions with all of its stakeholders, including shareholders, workers, customers, suppliers, and the wider community [14]. This viewpoint posits that businesses prioritizing the interests of all stakeholders are more inclined to promote long-term value creation and improve financial performance. CSR is a vital component of stakeholder management, demonstrating a company's commitment to ethical and sustainable practices [15]. By incorporating CSR programs into their business models, pharmaceutical firms may strengthen stakeholder relationships, develop trust, and enhance their brand, eventually leading to enhanced financial performance. CSR initiatives may provide several benefits, such as reduced operational expenses and financial risks, increased efficiency and competitiveness, and increased customer trust, all of which increase company performance [16]. In the pharmaceutical industry, where corporations encounter increasing pressure from stock markets, regulatory agencies, and the need for innovation, the adoption of a stakeholder-centric strategy is especially vital [17, 18].

2.2. Legitimacy Theory

The legitimacy theory posits that engaging in and transparently disclosing CSR may result in enhanced financial performance. On the other hand, when corporations demonstrate strong financial success, they often provide more detailed information about their CSR practices. The legitimacy theory is founded on the notion of organisational legitimacy, which posits that an institution may endure when its value system harmonises with that of the broader societal system. The misalignment of various value systems might jeopardise the legitimacy of the institution [19]. Legitimacy theory posits that organizations strive to function within social norms, values, and expectations to preserve their legitimacy and secure their survival [20]. This idea asserts that corporations must synchronize their activities with the existing social environment to acquire and sustain the backing of stakeholders, such as investors, regulators, and the public. Companies voluntarily provide information about their environmental and social performance to show their dedication to public norms, therefore improving their legitimacy and reducing possible dangers. The notion of legitimacy is especially important in the pharmaceutical sector, where firms face rigorous examination concerning the safety of medicines, pricing strategies, and ethical behavior [21]. Pharmaceutical companies may enhance their credibility by actively participating in CSR projects, including facilitating access to medications, endorsing healthcare programs, and complying with rigorous ethical standards. CSR serves as a mechanism for corporations to fulfill social expectations by matching their standards with community norms, therefore reinforcing their legitimacy among society and stakeholders [22].

The legitimacy and stakeholder theories offer theoretical frameworks that emphasize the significance of CSR in promoting financial success and long-term value development for businesses. These ideas highlight the strategic importance of CSR in improving competitiveness, reputations, and connections with stakeholders, eventually leading to financial results. Both models endorse a positive relationship between CSR and financial performance. However, the outcomes seen across different sectors and countries are not always consistent. This highlights the need for research that is both theory-based and data-driven, particularly in regulatory contexts like as India's, where CSR compliance is a requirement but strategic integration often lacks clarity.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

Theoretical frameworks that emphasise the significance of CSR in promoting financial success and long-term value development for businesses are offered by the Legitimacy and the Stakeholder Theory. These ideas highlight the strategic importance of CSR in improving competitiveness, reputation, and connections with stakeholders, eventually leading towards financial results.

2.3. CSR and Financial Performance

Extensive research has been conducted on the association among CSR and financial performance, resulting in a combination of positive, negative, and neutral findings. A direct correlation among financial performance and CSR has been highlighted by numerous studies, suggesting that CSR measures may enhance a company's profitability and competitive advantage. Financial success is directly correlated with CSR, as discovered by Waddock and Graves [4]. It is evident that this discovery supports both the effective management theory and the spare resource theory. Additionally, research conducted by Kim and Kim [23] has demonstrated that shareholder value is positively influenced by CSR initiatives in the tourist sector. This objective is accomplished by enhancing Tobin's Q, a metric that evaluates the firm's performance, and by reducing the hazards that equity holders encounter. Bird, et al. [24] have reported that CSR initiatives improve reputational capital, which in turn attracts highly motivated personnel, mitigates business risk, and generates positive word-of-mouth. Enhanced financial performance is the result of each of these factors.

In contrast, certain academics contend that CSR can have a devastating impact on financial performance. Friedman [25] famously contended that CSR expenditures divert resources from the primary objective of profit maximisation, thereby diminishing shareholder value. Barnett and Salomon [26] were also supporting this view point. Furthermore, researches have shown that there is no substantial correlation among CSR and financial success. This suggests that the impact of CSR initiatives may depend on several contextual elements. Margolis and Elfenbein [27] proposed that the link between CSR and financial performance may be more evident when using it as a predictor of future CSR initiatives, rather than the other way around. In addition, Peloza and Shang [28] emphasised the intricate and fluctuating nature of CSR operations, which poses difficulties in drawing broad conclusions about their influence on financial performance.

Furthermore, multiple studies have shown no significant correlation between CSR and financial performance, suggesting a non-linear or context-dependent relationship. Peloza and Shang [28] highlight the difficulty in evaluating the intangible benefits of CSR using traditional financial metrics, but [27] propose that CSR may more accurately forecast future CSR initiatives than financial outcomes. These conflicting findings in the literature may originate from differences in:

- Industry traits (consumer-facing vs. regulated industries like pharmaceuticals),
- Methods of measuring CSR (e.g., actual CSR spent against CSR disclosure ratings)
- Time horizon: long-term gains against short-term expenses,
- Regional and legal contexts: Mandated CSR in India against voluntary CSR in many Western nations.

These differences in findings highlight unresolved issues in the literature, particularly within developing, regulated industries such as India's pharmaceutical sector, highlighting several significant research gaps.

2.4. Research Gap

- Despite the growing significance of CSR in corporate governance, the theoretical foundations of CSR's financial implications through Legitimacy Theory and Stakeholder Theory remain insufficiently examined in empirical research. Legitimacy Theory posits that CSR enhances a firm's social authorization to operate, while Stakeholder Theory asserts that fulfilling stakeholder requirements enhances firm value. Nonetheless, there is a lack of empirical studies investigating

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

how these theoretical frameworks correlate with quantifiable financial performance when CSR is analyzed alongside fundamental financial metrics such as leverage and liquidity.

- Moreover, existing research predominantly focuses on developed markets, whereas the Indian pharmaceutical sector—characterized by obligatory CSR regulations and distinct stakeholder dynamics—provides a unique context for evaluating these relationships. This study initiatives to address this gap by synthesizing financial and non-financial determinants through these theoretical perspectives.

2.5. Objectives of the Study

- To examine the individual and combined impact of CSR, financial leverage, and liquidity on the financial performance of Nifty Pharma companies in India (measured by ROA and ROE)

2.6. Hypotheses

Based on the previous researches, and the gap analysed, we have outlined the hypotheses categorised into three sections, where the first section demonstrates the association of qualitative factor CSR with the financial performance of the NIFTY pharma companies, the second section discusses the relation of quantitative indices (Leverage and Liquidity) with the financial performance of the NIFTY pharma companies and the last section demonstrates the combined effect of both the factors on financial performance.

2.6.1. Section 1:

CSR (CSR) has the potential to enhance financial performance by enhancing stakeholder confidence, as stated by Stakeholder Theory, and by validating the firm's societal position, according to Legitimacy Theory.

H_1: CSR has a significant positive impact on ROA.

H_2: CSR has a significant positive impact on ROE.

2.6.2. Section 2:

Leverage and liquidity are standard financial metrics. Their association with profitability is analyzed to assess operational efficiency.

H_3: Financial leverage has a significant impact on ROA.

H_4: Financial leverage has a significant impact on ROE.

H_5: Liquidity has a significant impact on ROA.

H_6: Liquidity has a significant impact on ROE.

2.6.3. Section 3:

This investigates whether CSR works synergistically or independently of financial metrics to affect profitability.

H_7: CSR, leverage, and liquidity jointly influence ROA.

H_8: CSR, leverage, and liquidity jointly influence ROE.

3. Data and Methodology

3.1. Data

Research methodology may be categorized as an approach for problem-solving or a method for acquiring and synthesizing new information [29]. The study used a mixed-method methodology, combining descriptive and analytical research methodologies to get an extensive understanding of the topic. The descriptive design was used to depict the fundamental connections among the main variables and the sample under research, while the analytical design was used to ascertain and elucidate the causal influence of independent factors on dependent variables [30].

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

Secondary data represented the basis of the study, providing benefits like accessibility, cost-efficiency, and the availability of credible information. We acquire secondary data from various sources, such as research papers published in journals [31]. These secondary sources provide a solid basis for future study and the prevailing and emerging trends [32]. Data was collected from reputable sources, including yearly reports, published research articles, academic journals, and government websites [33]. The research analyzed ten years of data (2014–2023) from 20 pharmaceutical businesses on the NIFTY Pharma index. This research examines firms listed on the Nifty Pharma Index of the National Stock Exchange (NSE) in India. These companies were chosen for their significant presence in the Indian pharmaceutical sector, adherence to regulatory and disclosure standards, and the accessibility of reliable financial information. These firms provide a reliable and representative sample to determine the effects of leverage, liquidity, and CSR disclosures on financial performance. Their comparability and data accessibility make them suitable for performing comprehensive empirical studies.

The CSR disclosure data for the selected Nifty Pharma companies were obtained from the official CSR webpage of the Ministry of Corporate Affairs (MCA), Government of India. This platform offers publicly available and authentic CSR reports provided by companies as required by Section 135 of the Corporations Act, 2013. This government-maintained source ensures the trustworthiness, consistency, and regulatory compliance of the CSR data included in this research. Moreover, annual reports are generally acknowledged for their simplicity and trustworthiness in the collecting of CSR data [34].

3.2. Methodology

Our analysis was conducted using a Panel data fixed effect regression model by using Eviews statistical software. The panel data model can evaluate extensive datasets that combine both time series and cross-sectional characteristics. The fixed effects panel data regression model is used prior to the evaluation of Hausman's test findings. Dependent variables used in the study is Financial Performance. Following the earlier research, researcher have used ROE and ROA as the proxy construct for financial performance [35]. Independent variables used in the study is Leverage, Liquidity and CSR by the researcher. Debt-Equity and Current Ratio were used as a proxy for Leverage and liquidity respectively. Furthermore, other key determinants that may significantly influence a company's performance are firm size and sales growth. The size of a firm has the capacity to influence its social credentials. Large business enterprises have abundant resources to acquire and analyze social information, so granting them more competitive advantages [36]. Researcher will measure firm size using total assets employed by Wahba and Elsayed [37] in their study. Sales growth is a quantitative measure that organizations may use to ascertain the pace at which their sales income increases over a certain period. The inclusion of control variables is intended to mitigate any biases in the final outcomes [3].

3.3. Research Model

Based on the hypothesis of the study, researcher implemented two research models, one is based on ROA and other is based on ROE.

Model 1:

$$ROA_{it} = \beta_0 + \beta_1 \times CSR_{it} + \beta_2 \times Leverage_{it} + \beta_3 \times Liquidity_{it} + \beta_4 \times Sales\ growth_{it} + \beta_5 \times Firm\ Size_{it} + \alpha_i$$

Model 2:

$$ROE_{it} = \beta_0 + \beta_1 \times CSR_{it} + \beta_2 \times Leverage_{it} + \beta_3 \times Liquidity_{it} + \beta_4 \times Sales\ growth_{it} + \beta_5 \times Firm\ Size_{it} + \alpha_i$$

4. Results and Analysis

4.1. Descriptive Statistics

Table 1 shows the descriptive statistics of variables used by the researcher in this study. CSR has a mean score of 19.23 with a standard deviation of 12.12. ROA exhibits mean value of approx. 11.22, ranging from minimum of 5.69 to a maximum of 18.64. ROE has a mean value of 17.52, with the minimum value being 9.13 and the maximum 27.78. The Sales growth variable demonstrates a mean of

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

8159.87, ranging from 1746.95 to 30309.4. Additionally, the Leverage (LEV) has a mean value of 0.24, with a minimum of 0 and a maximum of 0.81. Liquidity (LIQ) shows a mean of 2.53, ranging from 1.10 to 7.46. The Firm Size variable has a mean of 3.93, with a range from 3.41 to 4.78. This extensive analysis of descriptive statistics offers helpful perspectives into the measures of central tendency and dispersion of the variables under study.

Table 1.
Descriptive Statistics of the Variable.

	N	Minimum	Maximum	Mean	SD
Leverage	19	0.000	0.809	0.24155	0.2485926
Liquidity	19	1.103	7.4686	2.531979	1.5461933
ROA	19	5.694	18.644	11.216671	3.5915207
ROE	19	9.133	27.782	17.524021	5.0663327
CSR	19	5.179	43.341	19.234	12.124921
Sales Growth	19	1746.9	30309.4	8159.8	7598.2
Firm Size	19	3.414	4.7859	3.9286	0.4070638

4.2. Correlation Analysis

Table 2.
Correlation Matrix.

	Correlation Matrix						
Variables	**ROA**	**ROE**	**Leverage**	**Liquidity**	**CSR**	**Sales Growth**	**Firm Size**
ROA	1.000						
ROE	0.742**	1.000					
Leverage	-0.590**	0.000	1.000				
Liquidity	0.516*	-0.009	-0.593**	1.000			
CSR	0.193	0.148	0.091	-0.058	1.000		
Sales Growth	-0.392	-0.395	0.049	-0.229	0.417	1.000	
Firm Size	-0.556*	-0.569**	0.152	-0.184	0.421	0.885**	1.000

**Note: ****Correlation is significant at 0.01 level (two-tailed).
*Correlation is significant at 0.05 level (two-tailed).

As per Table 2, Correlation coefficient between CSR and ROA is 0.193 and with ROE is 0.148, indicates week positive correlation of CSR with financial performance. Correlation coefficient among financial leverage and ROA is -0.590 and ROE is 0.000. The negative link suggests that firms employing greater degrees of leverage might encounter negative financial performance. Furthermore, correlation coefficient between Liquidity and ROA is 0.516 and with ROE is -0.009. This implies that companies that possess greater levels of liquidity may potentially achieve superior financial success. Furthermore, presence of negative association of sales with both ROA and ROE implies that increased sales do not automatically ensure improved financial success. Also, negative correlation of firm size with both ROA and ROE shows that larger companies tend to have lower financial results.

4.3. MODEL 1: (ROA)

To establish a suitable econometric model for examining the effects of CSR, leverage, liquidity, and company size on financial performance (ROA), a two-stage testing methodology was used, including the Chow Test and the Hausman Test.

Table 3.
Chow Test.

Test type	F-statistic	df	p-value
Cross Section F	3.028969	(18,1547)	0.0001
Cross Section Chi-square	56.63530	18	0.0000

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

The Chow Test was performed to ascertain the superiority of the Fixed Effects Model (FEM) over the Pooled Ordinary Least Squares (POLS) model. The null hypothesis posits that the pooled OLS model is sufficient, whereas the alternative hypothesis advocates for the fixed effects model.

Table 3 provides the Chow test results, revealing a significant F-statistic with a p-value less than 0.05. This indicates the presence of individual-specific effects, making the Fixed Effects Model more suitable than the Pooled OLS model.

Table 4.
Hausman Test.

Test type	Chi Sq. Statistic	df	p-value
Cross-section random	32.949932	5	0.0000
Period random	0.000000	5	1.0000
Cross-section & period random	26.535468	5	0.0001

After validating the suitability of the Fixed Effects Model, the Hausman Test was used to choose between the Fixed Effects Model (FEM) and the Random Effects Model (REM). The null hypothesis in this examination argues that the random effects model is consistent and efficient.

Table 4 illustrates that the Hausman test produced a Chi-square statistic with a p-value of less than 0.05, resulting in the rejection of the null hypothesis. This signifies an important connection between the explanatory factors and the individual effects, confirming that the Fixed Effects Model is superior than the Random Effects Model.

Table 5.
Fixed Affect Model.

Variable	Coefficient	Std. Error	t-Statistic	p-value
C	32.50192	5.814582	5.589726	0.0000
Liquidity	1.289300	0.392545	3.284468	0.0012
CSR	-0.002683	0.023721	-0.113113	0.9101
Leverage	-4.979524	1.580792	-3.150017	0.0019
Sales Growth	0.000129	9.418000	1.373706	0.1712
Firm Size	-6.178810	1.690413	-3.655208	0.0003
R squared = 0.3108				
Adjusted R-square = 0.2921				
F-statistic = 16.59				
Prob (F-statistic) = 0.0000				

The model in Table 5 exhibited an adjusted R-squared of 0.2921, indicating that around 29.2% of the variance in ROA is explained by the independent variables used in the model. Liquidity has a favorable and statistically significant impact on financial performance. An increase of one unit in the liquidity ratio correlates with a 1.2893 rise in ROA, assuming other factors remain constant. This indicates that companies with superior liquidity situations often exhibit enhanced financial performance. The coefficient for CSR expenditure is negative and statistically insignificant, suggesting that CSR spending does not have a meaningful direct impact on ROA in this sample. Leverage has a negative and strong correlation with ROA. A one-unit rise in the debt-to-equity ratio leads to a 4.98 reduction in ROA. This indicates that enterprises with significant leverage often exhibit lower profitability. The sales growth coefficient is positive but not statistically significant at 5%. This means that sales growth does not strongly affect ROA. ROA is adversely and strongly correlated with firm size.

The regression analysis findings strongly support hypotheses H7, which assert that CSR, leverage, and liquidity together impact the financial success of NIFTY Pharma firms. The ROA model has an R-squared value of 0.3108 and an F-statistic of 16.59 (p-value = 0.0000), indicating that around 31% of the variance in ROAs is related to the combined impact of CSR, financial leverage, and liquidity. This

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

outcome is statistically significant at the 1% level, confirming the combined effect of these factors on ROA.

4.4. MODEL 2: (ROE)

Table 6.
Chow Test.

Test type	F-statistic	df	p-value
Cross Section F	3.641860	(18,157)	0.0000
Cross Section Chi-square	66.29511	18	0.0000

In Table 6, the significant p-values suggest that the Fixed Effects model is more suitable than the Pooled OLS. Consequently, reject the null hypothesis, which posits that Pooled OLS is adequate.

Table 7.
Hausman Test.

Test type	Chi Sq. Statistic	df	p-value
Cross-section random	28.32613	5	0.0000
Period random	0.000000	5	1.0000
Cross-section & period random	23.36607	5	0.0003

In Table 7, Both p-values are less than 0.05, indicating significance, which contributes to the rejection of the null hypothesis that Random Effects is consistent and efficient. Researched has used the Fixed Effects model instead of Random Effects model.

Table 8.
Fixed Affect Model.

Variable	Coefficient	Std. Error	t-Statistic	p-value
C	61.18325	23.19750	2.637493	0.0092
Liquidity	1.951793	0.996463	1.958720	0.0519
CSR	-0.105742	0.996463	1.958720	0.0405
Leverage	-5.929098	3.546354	-1.671886	0.0965
Sales Growth	-0.000327	0.000320	-1.020450	0.3091
Firm Size	-8.838829	5.980128	-1.478033	0.1414
R squared = 0.444673				
Adjusted R-square = 0.319484				
F-statistic = 3.9286				
Prob (F-statstic) = 0.000				

Table 8 reveals an adjusted R-square value of 0.319, signifying that around 31.9% of the variance in ROE is explained by the independent variables: liquidity, CSR, leverage, sales growth, and company size. The liquidity coefficient is 1.9517, which is marginally significant. This indicates that a one-unit increase in liquidity correlates with an estimated rise of 1.95 units in ROE, indicating a positive effect, but with borderline significance. The CSR coefficient is -0.1057, and the outcome is statistically significant. This indicates an inverse correlation between CSR spending and ROE. An increase in CSR expenditure correlates with a marginal decline in ROE, maybe indicative of the immediate expenditures linked to CSR programs. The leverage coefficient is -5.9291 and is significant, indicating a negative relationship. This suggests that increased leverage may negatively affect business profitability as shown by ROE. The influence of sales growth is negative but statistically negligible, suggesting that fluctuations in sales growth do not have a substantial direct effect on ROE in this model. The firm size coefficient is negative (-8.8388) although lacks statistical significance. This indicates that, although higher company size may exhibit a negative correlation with ROE, the impact lacks statistical support in this study. The ROE model had statistical significance, shown by an R-squared value of 0.4447 and an F-statistic of 3.9286 (p-value = 0.000). This indicates that around 44% of the variation in ROE is

jointly explained by the three predictors, further confirming their combined influence on financial performance. Therefore, H8 is accepted.

The results from both Model 1 (ROA) and Model 2 (ROE) indicate that liquidity and financial leverage are essential factors influencing a firm's financial performance. Liquidity has a positive and significant relationship with both ROA and ROE, suggesting that businesses with strong liquidity are more capable of maintaining operations and generating returns, particularly in resource-intensive industries such as pharmaceuticals. Conversely, financial leverage is inversely correlated with profitability, suggesting that higher debt levels could reduce returns owing to increased interest commitments. Additionally, CSR does not substantially affect ROA but has a negative and statistically significant correlation with ROE, indicating that while CSR initiatives may facilitate long-term goals, they may impose short-term financial constraints. Other variables, such as sales growth and company size, were shown to be statistically insignificant, emphasizing that internal financial management characteristics like liquidity and leverage have a more substantial influence on business profitability.

Table 9.
Summary of Hypothesis.

Hypothesis	Statement	Independent Variable	Dependent Variable	Coefficient	p-value	Decision
H1	CSR has a significant positive impact on ROA	CSR	ROA	-0.0027	0.9101	Rejected
H2	CSR has a significant positive impact on ROE	CSR	ROE	-0.1057	0.0405	Rejected
H3	Financial leverage has a significant impact on ROA	Leverage	ROA	-4.9795	0.0019	Accepted
H4	Financial leverage has a significant impact on ROE	Leverage	ROE	-5.9291	0.0965	Accepted
H5	Liquidity has a significant impact on ROA	Liquidity	ROA	1.2893	0.0012	Accepted
H6	Liquidity has a significant impact on ROE	Liquidity	ROE	1.9518	0.0519	Accepted
H7	CSR, leverage, and liquidity jointly influence ROA	Joint Model	ROA	$R^2 = 0.3108$	0.0000	Accepted
H8	CSR, leverage, and liquidity jointly influence ROE	Joint Model	ROE	$R^2 = 0.4447$	0.0000	Accepted

Table 9 depicts the overall hypothesis of the study. The findings from the Fixed Effects regression analysis indicate that liquidity has a positive effect on ROA, confirming that companies with better short-term financial stability are generally more operationally successful [38]. Nonetheless, its effect on ROE is weaker, possibly because of equity-related variables affecting shareholder returns [39]. Furthermore, Leverage has a negative and strong correlation with both ROA and ROE, aligning with beliefs that excessive debt increases financial risk and diminishes profitability [40, 41]. This is particularly relevant in the pharmaceutical sector, where prolonged development cycles increase financial vulnerability. Additionally, CSR spending adversely affects ROE but not ROA, indicating that although CSR may not decrease operational efficiency, it might reduce short-term shareholder returns if not properly implemented [42]. Unexpectedly, firm size adversely impacts ROA, suggesting potential inefficiencies within large companies [43]. The finding challenges the conventional economies of scale viewpoint and indicates that bigger pharmaceutical companies could face regulatory inefficiencies, inflexible organizational frameworks, or coordination issues that hinder their operational efficiency [44]. At last, sales growth had no major impact on financial performance, indicating that sales expansion alone does not guarantee profitability without effective cost and asset management [45].

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

5. Conclusion

The study of CSR initiatives is becoming recognised as a significant undertaking within the academic communities on a global scale. This research aimed to analyse the potential effect of Leverage, Liquidity, and CSR on the financial performance of NIFTY Pharma companies. Previous studies have analysed the interplay between CSR and financial leverage, as well as the interplay between financial leverage and corporate value. Additionally, some studies have explored the connection between CSR and profitability. However, none of the researches have investigated the combined effect of CSR, liquidity, and financial leverage on Financial Performance. Furthermore, it is worth noting that the majority of existing research on CSR has been concentrated on nations with advanced economies, with minimal empirical inquiries conducted in developing countries [46].

The present findings concluded that liquidity has a substantial and beneficial impact on both ROA and ROE, highlighting the importance of liquid assets in maintaining operational stability and profitability within the capital-intensive pharmaceutical industry. These findings align with those of Sharma and Mani [47] who believe that companies with stronger liquidity exhibit higher levels of resilience and profitability. Additionally, the current ratio, utilised as a proxy for liquidity, assesses short-term solvency and indicates an enterprise's short-term financial stability by showing the margin remaining after settling current obligations [48]. Conversely, financial leverage has a negative correlation with profitability in both models, supporting the traditional view that excessive debt might hinder financial performance because of to higher interest liabilities [49]. Furthermore, Leverage involves significant risk, since it may result in bankruptcy [50]. This aligns with the conclusions of Rajan and Zingales [41] who emphasize the negative effect of excessive leverage on company value. Furthermore, CSR has no substantial impact on ROA and a negative, statistically significant impact on ROE. This differs from previous studies indicating that CSR improves financial performance by fostering business reputation and stakeholder trust [51, 52]. The results align with Margolis and Walsh [53] who warn that the financial advantages of CSR may be overestimated and not consistently evident in short-term financial indicators. This inconsistency emphasizes that CSR may incur expenses that may not promptly reflect in increased shareholder returns, particularly in emerging economies where CSR integration is still developing [54].

Policymakers need to establish incentive frameworks such as tax advantages or CSR evaluation systems to encourage strategic CSR performance. Pharmaceutical companies must incorporate CSR into their business strategy by allocating certain percentages of earnings to priority areas such as health and education, while managing liquidity and leverage to assure their financial sustainability. Regulatory authorities need to promote responsible finance practices and provide structures for the effective implementation of CSR. Regulators must reward companies that exhibit both financial discipline and social commitment, and they must promote open CSR reporting. These measures will align stakeholder expectations with sustainable performance results. Regulated financial reports provide essential information to investors, with the degree of informativeness frequently changing based on company and economic factors [55].

Policymakers and business strategists should see CSR as a long-term investment rather than a tool for immediate profit maximization. The strategic inclusion of CSR, together with prudent leverage and liquidity management, may enhance the sustainability of an organization. Regulatory authorities need to promote responsible finance practices and provide structures for the effective implementation of CSR. Managers may use these insights to connect company social initiatives with sustainable financial objectives, therefore enhancing stakeholder value over time. The research provides investors with an advanced structure to assess companies based on ethical decisions, financial discipline, and resource allocation. Ultimately, it is important for organisations to consistently endeavour to enhance their worth in order to get investors to allocate their capital towards these enterprises [56].

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

6. Limitations

1. The research only targets publicly traded pharmaceutical companies, excluding smaller or unlisted entities. These companies can differ considerably in financial structure, CSR involvement, and resource accessibility. Incorporating them in future studies may uncover wider industry trends and provide more comprehensive findings.

2. The study fails to include macroeconomic factors such as GDP growth, inflation, or interest rates. External influences may significantly influence business performance, particularly in capital-intensive sectors. Their use in future models could provide a more thorough perspective on the determinants of company performance.

3. The study emphasizes the immediate effects of CSR. However, CSR programs frequently offer long-term, intangible benefits such as brand loyalty, social legitimacy, and employee engagement, which are significant elements that might influence outcomes. Future research may use a longitudinal approach to investigate these delayed effects, so offering greater understanding of the strategic importance of CSR.

MCN Number: IU/R&D/2025-MCN0003633

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Copyright:

References

[1] K. M. Pavithra, *With more than 1.27 trillion rupees spent, CSR expenditure skewed towards certain sectors & states.* India: Factly Media and Research, 2025.

[2] M. Kiliç, C. Kuzey, and A. Uyar, "The impact of ownership and board structure on corporate social responsibility (CSR) reporting in the Turkish banking industry," *Corporate Governance*, vol. 15, no. 3, pp. 357-374, 2015.

[3] R. Kaur and T. Dave, "A study on the impact of corporate social responsibility on financial performance of companies in India," *Asia-Pacific Journal of Management Research and Innovation*, vol. 16, no. 3, pp. 229-237, 2020.

[4] S. A. Waddock and S. B. Graves, "The corporate social performance–financial performance link," *Strategic management journal*, vol. 18, no. 4, pp. 303-319, 1997.

[5] P. L. Cochran and R. A. Wood, "Corporate social responsibility and financial performance," *Academy of management Journal*, vol. 27, no. 1, pp. 42-56, 1984.

[6] CSR BOX, "India CSR outlook report," Retrieved: https://csrbox.org/. [Accessed Nov. 17, 2022], 2022.

[7] A. M. Abdulkareem, "Financial performance of Indian pharmaceutical companies: Analysis of leverage and cost of capital," *Journal of Advanced Research in Economics and Administrative Sciences*, vol. 1, no. 1, pp. 13-22, 2020. https://doi.org/10.47631/jareas.v1i1.15

[8] A. Ayange, N. C. Emmanuel, I. H. Rosemary, U. C. Ndudi, and U. E. Samuel, "Effect of capital structure on firms performance in Nigeria," *Universal Journal of Accounting and Finance*, vol. 9, no. 1, pp. 15-23, 2021.

[9] A. K. Panigrahi, "Analysis of financial performance: A study of selected pharmaceutical companies," *Global Management Horizon*, vol. 8, no. 1, pp. 47–56, 2019.

[10] A. Vijayakumar, "Determinants of financial structure of corporate sector in India-some empirical evidence," *Management and Labour Studies*, vol. 34, no. 4, pp. 471-487, 2009.

[11] A. A. Ullmann, "Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of U.S. firms," *Academy of Management Review*, vol. 10, no. 3, pp. 540–557, 1985.

[12] J. B. McGuire, A. Sundgren, and T. Schneeweis, "Corporate social responsibility and firm financial performance," *Academy of Management Journal*, vol. 31, no. 4, pp. 854–872, 1988.

[13] R. E. Freeman, *Strategic management: A stakeholder approach.* Boston, MA, United States: Pitman, 1984.

[14] S. Sahu and S. Nayak, "Pre & post merger financial performance - a study of selected companies in indian pharmaceutical sector," *Interscience Management Review*, pp. 115–119, 2011.

[15] P. Sethi, T. N. Sahu, and S. Maity, "Firm performance, vertical agency crisis and corporate governance of Indian listed companies," *Asian Journal of Economics and Banking*, vol. 7, no. 1, pp. 86-98, 2022.

[16] M. Taliento and A. Netti, "Corporate social/environmental responsibility and value creation: Reflections on a modern business management paradigm," *Business Ethics and Leadership*, vol. 4, no. 4, pp. 123-131, 2020.

[17] L. Schweizer, T. Dingermann, O. Q. Russe, and C. Jansen, *Advances in pharma business management and research*, 1st ed. Cham, Switzerland: Springer International Publishing, 2020.

[18] L. Schweizer and T. Dingermann, "Introduction: Trends and developments in the pharmaceutical and life sciences industry," *Advances in Pharma Business Management and Research: Volume 1*, pp. 1-5, 2020.

[19] J. Dowling and J. Pfeffer, "Organizational legitimacy: Social values and organizational behavior," *Pacific Sociological Review*, vol. 18, no. 1, pp. 122–136, 1975.

[20] M. N. Utomo, S. Wahyudi, H. Muharam, and M. L. Taolin, "Strategy to improve firm performance through operational efficiency commitment to environmental friendliness: Evidence from Indonesia," *Organizations and Markets in Emerging Economies*, vol. 9, no. 1, pp. 62-85, 2018.

[21] W. H. Putri, H. A. Hasthoro, and G. M. Putri, "Analyzing the quality disclosure of global reporting initiative G4 sustainability report in Indonesian companies," *Problems and Perspectives in Management*, vol. 17, no. 4, pp. 453-468, 2020.

[22] W. Husnaini and H. Khusnah, "Can corporate social responsibility (CSR) enhance firm performance," in *Proceedings of the 2nd International Conference on Business and Management of Technology (ICONBMT 2020), Atlantis Press*, 2021, pp. 115-119.

[23] Y. Kim and C. Kim, "The relationship between corporate social responsibility and financial performance: Evidence from Korea," *Journal of Business Ethics*, vol. 123, no. 4, pp. 607–623, 2014.

[24] R. Bird, A. D. Hall, F. Momentè, and F. Reggiani, "What corporate social responsibility activities are valued by the market?," *Journal of Business Ethics*, no. 189–206, 2, 2007.

[25] M. Friedman, *The social responsibility of business is to increase its profits*. United States: The New York Times Magazine, 1970.

[26] M. L. Barnett and R. M. Salomon, "Does it pay to be really good? Addressing the shape of the relationship between social and financial performance," *Strategic Management Journal*, vol. 33, no. 11, pp. 1304–1320, 2012.

[27] J. D. Margolis and H. A. Elfenbein, "Do well by doing good? Don't count on it," *Harvard Business Review*, vol. 86, no. 1, pp. 19–20, 2008.

[28] J. Peloza and J. Shang, "How can corporate social responsibility activities create value for stakeholders? A systematic review," *Journal of the Academy of Marketing Science*, vol. 39, no. 1, pp. 117–135, 2011.

[29] P. Srivastava and S. S. Mazhar, "Comparative analysis of sharpe and sortino ratio with reference to top ten banking and finance sector mutual funds," *International Journal of Management Studies*, vol. 5, no. 4, pp. 1-8, 2018.

[30] M. Smith, R. Thorpe, and P. Jackson, *Management research*, 4th ed. London, United Kingdom: SAGE Publications, 2013.

[31] S. Bajpai, S. S. Mazhar, F. S. Khan, G. Prakash, and A. Singh, "Empirical study on customer satisfaction towards services of Life Insurance Corporation at Lucknow," *Journal of Information and Optimization Sciences*, vol. 43, no. 7, pp. 1871-1883, 2022. https://doi.org/10.1080/02522667.2022.2128538

[32] M. A. Nigam, Z. Mehdi, and S. S. Mazhar, "Development of financial technology through e-payment system in India," *Journal of University of Shanghai for Science and Technology*, vol. 23, no. 3, pp. 258-269, 2021.

[33] M. Steven, *Research methods and data analysis in public administration*. New York,: Routledge, 2020.

[34] S. B. Hughes, A. Anderson, and S. Golden, "Corporate environmental disclosures: Are they useful in determining environmental performance?," *Journal of Accounting and Public Policy*, vol. 20, no. 3, pp. 217-240, 2001. https://doi.org/10.1016/S0278-4254(01)00031-X

[35] M. S. Malik and L. Kanwal, "Impact of CSR disclosure on financial performance: Case study of listed pharmaceutical firms of Pakistan," *Journal of Business Ethics*, vol. 150, no. 1, pp. 69–78, 2018.

[36] M. V. Russo and P. A. Fouts, "A resource-based perspective on corporate environmental performance and profitability," *Academy of Management Journal*, vol. 40, no. 3, pp. 534-559, 1997.

[37] H. Wahba and K. Elsayed, "The mediating effect of financial performance on the relationship between social responsibility and ownership structure," *Future Business Journal*, vol. 1, no. 1/2, pp. 1-12, 2015.

[38] A. M. Eljelly, "Liquidity-profitability tradeoff: An empirical investigation in an emerging market," *International Journal of Commerce and Management*, vol. 14, no. 2, pp. 48-61, 2004. https://doi.org/10.1108/10569210480000179

[39] S. H. Penman, *Financial statement analysis and security valuation*, 5th ed. New York: McGraw-Hill Education, 2013.

[40] F. Modigliani and M. H. Miller, "Corporate income taxes and the cost of capital: A correction," *The American Economic Review*, vol. 53, no. 3, pp. 433-443, 1963.

[41] R. G. Rajan and L. Zingales, "What do we know about capital structure? Some evidence from international data," *The journal of Finance*, vol. 50, no. 5, pp. 1421-1460, 1995.

[42] A. McWilliams and D. Siegel, "Corporate social responsibility and financial performance: Correlation or misspecification?," *Strategic Management Journal*, vol. 21, no. 5, pp. 603-609, 2000.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242

[43] S. K. Majumdar, "The impact of size and age on firm-level performance: Some evidence from India," *Review of Industrial Organization*, vol. 12, pp. 231-241, 1997. https://doi.org/10.1023/A:1007766324749
[44] A. D. Chandler, "Scale and Scope: The dynamics of industrial capitalism," *Cambridge, MA*, no. Harvard Univercity Press, 1990.
[45] P. J. M. Nunes, Z. M. Serrasqueiro, and T. N. Sequeira, "Profitability in Portuguese service industries: A panel data approach," *The Service Industries Journal*, vol. 29, no. 5, pp. 693-707, 2009.
[46] A. K. Sekhon and L. M. Kathuria, "Analyzing the impact of CSR on corporate financial performance: Evidence from top Indian firms," *Corporate Governance: The International Journal of Business in Society*, vol. 20, no. 1, pp. 143–157, 2019.
[47] A. K. Sharma and M. Mani, "Impact of working capital management on firm profitability in Indian consumer goods industry," *Global Business Review*, vol. 14, no. 1, pp. 159–173, 2013.
[48] A. Maqbool and W. Alim, "Financial performance of state bank of India and ICICI Bank – A comparative study," *Emerging Issues in Management & Economics in the Post Pandemic Era*, pp. 36-112, 2021.
[49] Z. Bodie, A. Kane, and A. J. Marcus, *Investments*, 10th ed. New York: McGraw-Hill Education, 2014.
[50] S. Javed, F. Husain, N. Malik, and K. Pandey, "Bibliometric analysis of leverage, liquidity and profitability: Revealing literature gaps, author collaborations, and key insights," *International Research Journal of Multidisciplinary Scope*, vol. 5, no. 3, pp. 583-598, 2024.
[51] S. Maqbool and M. N. Zameer, "Corporate social responsibility and financial performance: An empirical analysis of Indian banks," *Future Business Journal*, vol. 4, no. 1, pp. 84-93, 2018. https://doi.org/10.1016/j.fbj.2017.12.002
[52] S. Kapoor and H. Sandhu, "Does it pay to be socially responsible? An empirical examination of impact of corporate social responsibility on financial performance," *Global Business Review*, vol. 11, no. 2, pp. 185-208, 2010. https://doi.org/10.1177/097215091001100205
[53] J. D. Margolis and J. P. Walsh, "Misery loves companies: Rethinking social initiatives by business," *Administrative science quarterly*, vol. 48, no. 2, pp. 268-305, 2003.
[54] J. A. Niresh and W. H. E. Silva, "The nexus between CSR disclosure and financial performance: Evidence from the listed banks, finance and insurance companies in Sri Lanka," *Accounting and Finance Research*, vol. 7, no. 2, p. 65, 2018.
[55] S. A. Ahmad, D. P. K. Asthana, and D. A. Sinha, "Role of corporate reporting in emerging economies as investment information," *International Journal of Management*, vol. 8, no. 2, pp. 217–223, 2017.
[56] H. Ispriyahadi and G. A. U. Putri, "The effects of leverage, investment decision, dividend policy and profitability, on firm value of the automotive sector companies," *JAAF (Journal of Applied Accounting and Finance)*, vol. 5, no. 2, pp. 68-80, 2021.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 6: 1799-1814, 2025
DOI: 10.55214/25768484.v9i6.8242