

EMPIRICAL RELATIONSHIP BETWEEN CORPORATE SOCIAL RESPONSIBILITY DISCLOSURES AND FINANCIAL PERFORMANCE: THE IMPACT OF FIRM'S INTANGIBLE RESOURCES

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Abstract

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This paper aims to investigate the Impact of the company's intangible resources on the relationship between corporate social responsibility (CSR) disclosures and corporate financial performance. A content analysis technique is employed to extract the relevant primary information on CSR disclosure, and the relevant corporate financial information is extracted from the Prowess database of 81 Indian companies representing the ten diverse industries, for the years 2014 to 2016. Further, the panel data regression technique is applied to investigate the proposed relationship. The findings revealed that CSR disclosure has significantly and positively influenced the corporate financial performance determinants of return on equity (ROE) and return on assets (ROA). The intangible resources of human capital and Research & development have significantly and positively impacted the corporate financial performance determinants ROE and ROA, whereas corporate reputation has significantly but negatively impacted the corporate financial performance determinants ROE and ROA. The findings of the study contribute to stakeholder theory by developing a CSR disclosure measurement checklist encompassing the employee, community, customer, and environment dimensions. The study further empirically investigates the proposed relationship in the context of intangible resources.

Keywords: Corporate Social Responsibility, Corporate Financial Performance, Intangible Resources, Human Capital, Corporate Reputation, R&D

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1. INTRODUCTION

In recent years, community sensitivity regarding corporate ethical issues like moralistic deficiency and frailty has intrigued the corporate sector (Chen et al., 2014). The corporate sector is encountering

difficulty in making a feasible ethical resolution for the welfare of the community and the natural environment (Disegni et al., 2012). The strategic decision of scarce resource allocation is a more complex phenomenon since the performance of corporations is evaluated not only on the economic

outcomes of their operations but also on how they honor societal expectations. The business managers promptly acknowledged the significance of adhering to ethical standards, which is a propulsive force to boost the corporate business in diverse ethical circumstances (Gi et al., 2015). Strategic management decisions are now influenced by diverse competitive forces such as Government regulations, consumers' dynamic expectations, employee issues, and environmental concerns. Such emerging strategic decisions are the outcome of the mounting diversity of stakeholders' expectations and a corporation's interaction with diverse stakeholder groups (Waddock, 1996). Classical businesses are wealth-conscious and promote profit-maximizing investments. Whereas the stakeholder theory originated to make corporations responsive towards their operational and environmental issues (Donaldson & Preston, 1995). Rationally, the altercation surged between the corporations' economic operations and the ethical standards that contemplated profit maximization. Thence, corporate social responsibility (CSR) has emerged as a strategic concept to maintain a balance between these two diverse concerns to achieve competitive advantages (Chen et al., 2014).

The origin of the CSR concept is as old as the business itself. Business groups have been recognized as significant agents of innovation within the community over the last two centuries (Carroll, 2008). During the Industrial Revolution of the late 1800s, the sole objective of profitability emerged as a concept of corporate-community relationships that entailed the need for community responsibility for corporations (Ehsan & Kaleem, 2012). In the 1850s, as per the classical view, the sole economic purpose of business organizations was shareholder profit maximization. Now, the notion of CSR is reacting to this challenge by encompassing not only the financial aspect but also the consumers, employees, and environmental facets of the community. Whereas the antagonists argue that if businesses concentrate more on societal welfare, they may decline the capability of market mechanisms and fail to attain the objectives of optimal resource allocation and shareholder wealth maximization. However, the proponents of CSR opine that ethically practice-oriented corporations ought to contribute their resources to community welfare. It will improve the corporate reputation, foster a better relationship with the state and society, retain talent, and enhance market share. Presently, companies are eager to yield more benefits by sustaining benevolent relations with the community and state. Eventually, it will convert these intangible resources into strategic advantages to attain corporate objectives effectively and efficiently. CSR initiatives not only improve the company's financial strength but also work as a strategy to intrigue institutional shareholders (Mahoney & Roberts, 2007). CSR initiatives and economic performance are two aspects that have a mutually invigorating impact. Corporations with better financial performance invest more in CSR operations, which in turn, enhances their economic strength. Consequently, the decision to invest in CSR initiatives must be investigated and scrutinized like other investment opportunities for corporations (McWilliams & Siegel, 2001).

It is claimed that by sustaining a close association with principal stakeholder groups, a company may build up intangible resources, viz.,

human capital, research and development, corporate reputation, and organizational culture, that facilitate the best productive utilization of the company's resources to attain a competitive edge over its competitors (Orlitzky et al., 2003). There is a specific impact of innovation and modernism, corporate image, and human assets on the competitiveness of a company. The differences in performance of the companies are primarily due to the presence or absence of intangible resources, as these are strenuous to accumulate, imitate, develop, or acquire, and to be replicated by rivals.

Today, CSR is a burning concern in the corporate world. Numerous corporations around the globe are neck-deep in CSR operations and spending millions of dollars on health care and environmental activities. CSR has not merely pressurized corporations to review their obligations before the various stakeholder groups, it has also inspired researchers to evaluate the reaction of CSR initiatives on corporate sustainable performance (Chen et al., 2014); and the academicians to debate furiously on the repercussions of CSR programs on corporations' performance and community welfare (Ehsan & Kaleem, 2012). Several studies have endeavored to test the link between CSR disclosure and economic performance, but Orlitzky et al. (2003) concluded that the association is not fully established and stressed the need for the development of a relevant model that will involve the variables, that have not been considered earlier. McWilliams and Siegel (2001), in their study, revealed contradictory findings in earlier studies due to ignoring the research and development variable. Similarly, the external determinants of industry growth have positively moderated the linkage between environmental issues and economic performance. The inclusion of such variables will establish a clear linkage between economic performance and CSR disclosure (Margolis & Walsh, 2003). Similarly, Rowley & Berman (2000) also opined that earlier ignored variables must be mediated to explore this association. Furthermore, Alafi and Alsufy (2012) claimed that exploring the association between these two variables only served to enigmatic the various influential variables in this association and resulted in unreliable findings.

To obtain reliable findings, influential factors that were ignored or neglected in earlier studies must be recognized and empirically investigated. In view of the above rationale, the prime objective is to investigate the Impact of the company's intangible resources on the relationship between corporate social responsibility disclosures and corporate financial performance. Therefore, the present study also proposes a model in which intangible resources are included and analyzed to establish a linkage between CSR disclosures and financial performance. To examine the influence of corporate intangible resources on the linkage between CSR disclosures and corporations' economic performance, the panel data regression statistical technique is applied. The findings of the study reveal that there is a statistically significant and positive association between CSR disclosures and corporate financial performance.

The rest of the paper is structured into four main sections. Section 2 presents the literature review and the hypothesis development. Section 3 describes the database and research methodology, data collection, research framework, model

specification, and statistical methods used. After this, Section 4 expresses the results and discussion, covering empirical results and discussion, and a summary of the tested hypotheses. Finally, Section 5 presents the conclusions and managerial implications of the study.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

It is not a big surprise that CSR appears to be an “apple-pie virtue”, but it is quite contentious. The confrontational debates on CSR implementation have raised the burning issue in corporations’ minds about whether CSR initiatives are beneficial or may hurt them financially. The diverse research findings of positive, negative, and non-existent relationships may be due to variation in the industrial background; and other aspects, like economic disturbance or employee behaviors and research models (Lin et al., 2009). The findings of the association are somewhat evasive and inconclusive (Margolis & Walsh, 2003). The reason behind this ambiguity is the predominance of a positive association theme in numerous research studies with no correlation or negative association (Aupperle et al., 1985). Similarly, Alafi and Alsufy (2012) have inquired about the technique used to investigate the relationship, because the direct relationship between these two variables cannot be purely decisive or reliable. There may be a possibility that the association may be influenced by some other intervening factors that have not been considered. Corporate performance is also positively influenced by competitive advantages, such as corporate image and customer satisfaction (Mulki & Jaramillo, 2011). Among various intangible assets, the company’s human capital, corporate image, and technology are recognized as of paramount strategic concern and value.

Throughout all the phases of development economics, CSR activities are recognized as a pivotal determinant in attaining the objectives of wealth and profitability maximization. Accordingly, numerous studies investigated a direct linkage between CSR disclosures and corporate performance and observed a positive link (Alafi & Alsufy, 2012; Luo & Bhattacharya, 2006). Garriga and Mele (2004) summarized the findings of 52 research studies and found that CSR had improved financial results. Correspondingly, in a summary of 34 studies on CSR disclosure and company performance associations, Van Beurden and Gössling (2008) observed that 68 percent of the research revealed a positive link. On the same pattern, a study on a sample of 1000 Taiwanese cases was explored to review the influence of CSR initiatives and found a positive link between CSR and economic performance (Lin et al., 2009). Likewise, Galbreath and Shum (2012) observed a significant positive linkage between CSR initiatives and corporate gains among Australian companies. Throughout all the phases of development economics, CSR activities are recognized as a pivotal determinant in attaining the objectives of wealth and profitability maximization (Musviyanti et al., 2022; Nimani et al., 2022; Bonuedi et al., 2020; Kostyuk et al., 2013).

Shabbir et al. (2020) used a non-linear and disaggregated approach and found that the linear model reflected a negative relationship between CSP and returns on capital, whereas in the non-linear

model, CSR and financial performance have a positive relationship. Kaur and Singh (2021) found a positive impact of CSR on financials in terms of value-added, profitability measures, and growth measures, indicating that CSR investment will enhance shareholders’ wealth. In a study, Nguyen et al. (2022) found that CSR disclosure has a negative influence on corporate performance, environmental responsibility has a clear negative impact, and social responsibility has a weak influence on financial performance. Likewise, in a study, Coelho et al. (2023) suggested that CSR directly influences corporate financial performance, and such influence becomes more considerable as social, environmental, and governance scores improve.

Most of the earlier research explored the direct impact of CSR disclosures on company profitability (Orlitzky et al., 2003). In appraising the earlier reviews, the following hypotheses are framed:

H1a: There is a statistically significant and positive association between CSR disclosures and return on equity (ROE).

H1b: There is a statistically significant and positive association between CSR disclosures and return on assets (ROA).

Human capital, as an intangible resource, encompassing a sense of involvement among employees and their contribution to achieving organizational goals, is the source of competitive advantage to ensure higher future profitability. The rationale behind this is that the amount incurred by employees should not be considered a cost but rather an asset investment since skilled employees are the prime pillars and value creators of the modern economy. An analysis of earlier literature found sufficient evidence that human capital positively impacted economic performance, and Chen et al. (2014) revealed that human resources have positively affected the profitability and market value of Taiwanese corporations. Similarly, Kamath (2008) revealed that human resources have a foremost influence on the productivity and profits of the best Indian pharmacy corporations. Likewise, Ting and Lean (2009) found a positive association between ROA and the human capital of Malaysian corporations. The accumulation of the best human resources may become the foundation of a competitive edge and enhance economic performance. Hence, Ballester et al. (2002) used labor and related expenses (wages and salaries, social security, pensions, profit sharing, and other labor compensation) as a proxy ratio of human capital. Therefore, in the present study, the labor and related expenses to total assets ratio is applied as a proxy for human capital. In this regard, the following hypotheses are framed:

H2a: There is a statistically significant and positive association between human capital and return on equity.

H2b: There is a statistically significant and positive association between human capital and return on assets.

Corporate reputation also influences the linkage between CSR disclosure and economic performance. Undertaking CSR goals, helps companies enhance their corporate reputation and brand equity, which are crucial constituents of corporate image. An improved corporate image facilitates companies’ ability to magnetize skilled workers, enhance employees’ commitment, improve customer loyalty, and engage in healthy negotiation with lenders and

bankers, all of which result in an improvement in corporate financial performance. The improved corporate image may eventually result in profitability and earnings. Honoring social welfare goals also facilitates companies' efforts to enhance both brand and reputation (Rowley & Berman, 2000), which are vital constituents of reputation. The various determinants of the corporate image, such as ethical behavior, the quality of services and products, market control, reliability, management quality, and particularly financial performance. Moreover, the price-earnings ratio is employed as an analytical measure to evaluate the investment risks and growth of earnings. The price-earnings ratio is a significant proxy to measure the corporate image. Therefore, in the present study, the price-earnings ratio is employed to quantify corporate reputation. So, in this regard, the following hypotheses are framed:

H3a: There is a statistically positive and significant association between corporate reputation and return on equity.

H3b: There is a statistically positive and significant association between corporate reputation and return on assets.

Earlier studies revealed that this association has suffered from some critical empirical and theoretical limitations. One such is the omission of the variable intensity of research and development investment by the company (McWilliams & Siegel, 2001). Ignoring the research and development (R&D) variable from the econometric model is principally problematic because the theoretical literature advocates that R&D investments have a long-standing influence on financial performance. R&D are creating strategic investments that create persistent earnings, enhance corporate profits, and increase investors' yield (Mizik & Jacobson, 2003).

Similarly, Naik et al. (2014) observed that investment in research and development is positively linked with the performance of a corporation, and R&D intensity is positively related to ROE and ROA. Keeping in view the above literature, R&D investment has positively influenced profitability. For this purpose, the ratio of research and development expenditures divided by sales revenue for the entire company is taken as an independent variable. Since, within an industry, R&D expenditures tend to rise linearly with sales revenues at the business unit and company levels, Consequently, McWilliams and Siegel (2001) employed the ratio of R&D expenditures/sales as an independent variable in their research. So, in this regard, the following hypotheses are framed:

H4a: There is a statistically significant and positive association between R&D expenditure and return on equity.

H4b: There is a statistically significant and positive association between R&D expenditure and return on assets.

3. RESEARCH METHODOLOGY

3.1. Data sources and sample

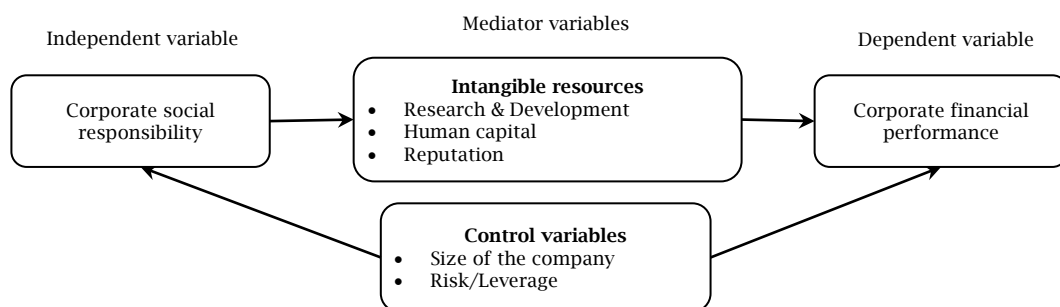
The sample is taken from the top 200 corporations registered on the Bombay Stock Exchange (BSE). Out of these 200 companies, only 81 are shortlisted based on the information available on intangible resources. The data has been collected for three years, from 2014 to 2016, as the year 2013 witnessed a historical amendment in the Companies Act to make social responsibility mandatory. The sample companies are categorized based on industry classification: 1) drugs and pharmaceuticals; 2) automobiles; 3) paint, chemicals, leather, and pesticides; 4) communication equipment and computer software; 5) energy; 6) oil and gas; 7) infrastructure; 8) FMCG; 9) minerals and metals; and 10) textiles.

These industries represent the diverse sectors of the economy; the manufacturing and consumer goods industries have the maximum impact on the community and the environment. CSR disclosure information under four stakeholder dimensions such as employees, communities, customers, and the environment is extracted from corporate sustainability, annual, and environmental reports by using the content analysis method (Branco & Rodrigues, 2007; Bowman & Haire, 1975). The data related to intangible resources (research and development, human capital, and corporate reputation), corporate financial performance, and the control variables are taken from the Prowess database. As far as statistical techniques are concerned, panel data regression is applied to investigate CSR disclosures and corporate financial performance relationships.

3.2. Research framework

Figure 1 presents a conceptual research framework for analyzing the impact of intangible resources on the relationship between CSR disclosure and financial performance considering the control variables.

Figure 1. Conceptual research model



Source: Authors' elaboration.

A composite CSR index is developed for the measurement of CSR disclosure practices among Indian corporations. The CSR checklist is comprised of thirty CSR disclosing statements are originated from the previous research works of (Besser & Miller, 2001; Haniffa & Cooke, 2005) to review the nature and degree of CSR disclosure under community development and welfare, employee relations, environment, and customers' concerns and product dimensions based on stakeholder theory. The content analysis score method is used on a dichotomous basis, i.e., 0 — score for non-disclosure; 1 — score for qualitative disclosure; and 2 — score for quantitative disclosure (Aras et al., 2010; Whiting & Woodcock, 2011).

3.3. Model specification

3.3.1. Dependent variable

Corporate financial performance is the sole dependent variable, which is proxied through the two financial performance determinants of return on equity (ROE) and return on assets (ROA). Both ROA and ROE are the most significant ratios employed to measure corporate performance for companies and investors, respectively. On reviewing the earlier literature, ROE and ROA are employed in the present study to measure economic performance, which is consistent with earlier studies that have investigated CSR disclosures and financial performance associations (Hull & Rothenberg, 2008).

$$ROE_{it} = \alpha_0 + \beta_1 CSR_{it} + \beta_2 HUC_{it} + \beta_3 CR_{it} + \beta_4 R\&D_{it} + \beta_5 SIZE_{it} + \beta_6 LEV_{it} + \varepsilon_{it} \quad (1)$$

$$ROA_{it} = \alpha_0 + \beta_1 CSR_{it} + \beta_2 HUC_{it} + \beta_3 CR_{it} + \beta_4 R\&D_{it} + \beta_5 SIZE_{it} + \beta_6 LEV_{it} + \varepsilon_{it} \quad (2)$$

Table 1. Descriptive statistics

Variable	Mean	SD	CV	ROA	ROE	CSR	LEV	SIZE	HUC	CR	R&D
ROA	11.81	7.97	67.52	1	--	0.040	-0.481*	0.246*	0.498*	0.066	0.065
ROE	22.55	15.38	68.24	--	1	-0.025	-0.334*	0.148*	0.348*	0.124	0.035
CSR	74.58	10.61	14.23	0.040	-0.025	1	-0.031	0.358*	-0.016	-0.202*	-0.242*
LEV	0.29	0.44	149.52	-0.481*	-0.334*	-0.031	1	-0.074	-0.300*	-0.163*	-0.025
SIZE	12.53	1.02	8.13	0.246*	0.148*	0.358*	-0.074	1	0.213*	-0.085	-0.161*
HUC	8.14	7.85	96.42	0.498*	0.348*	-0.016	-0.300*	0.213*	1	0.062	0.149*
CR	30.71	18.46	60.10	0.066	0.124	-0.202*	-0.163*	-0.085	0.062	1	-0.003
R&D	1.25	2.23	179.44	0.065	0.035	-0.242*	-0.025	-0.161*	0.149*	-0.003	1

Note: * Correlation is significant at the 0.05 level (2-tailed). N = 243, SD = standard deviation, CV = coefficient of variation.

4. RESULTS AND DISCUSSION

In descriptive statistics, the mean, coefficient of variance, standard deviation, and correlations are computed and analyzed. To explore the relationship, panel data regression is applied, and for that, the validity of specification tests and diverse regression assumptions is also analyzed.

4.1. Descriptive statistics

Descriptive statistical results (Table 1) highlight that the mean of dependent variables ROA and ROE is around 11.81 and 22.55 percent, respectively. Likewise, the mean CSR disclosure is 74.58 percent. In the case of the control variables, the mean leverage and company size are 0.29 and 12.53 percent, respectively. Similarly, in the case of intangible resources, the mean human capital is 8.14 percent, the mean reputation is 30.71 percent, and

3.3.2. Independent variables description

The CSR disclosure is applied as an independent variable to explore the association. On the same pattern, intangible resources such as research and development (R&D), human capital (HUC), and corporate reputation (CR) are also employed as independent variables to investigate their impact on such relationships.

3.3.3. Control variables description

The literature review further advocates that various other variables may have an effect on this relationship. Consequently, it is crucial to control these variables while analyzing relationships. However, in the present study, the size of the company (SIZE) (McWilliams & Siegel, 2001) and leverage (LEV) (Reverte, 2009) are employed as control variables.

3.3.4. Econometric specification

To examine the influence of corporate intangible resources such as research and development, human capital, and corporate reputation on the linkage between CSR disclosures and corporations' economic performance in the presence of control variables, the following regression equations are framed to generate empirical estimates for the present study:

the mean R&D is around 1.25 percent of the sample. The coefficient of variation highlights that in the case of R&D, there is the highest variation of 179.44 percent, indicating that the difference among the companies regarding expenditure on R&D is the highest where it is least in the case of the variable company size, i.e., 8.13 percent. During the three years, it has been found that the mean leverage of sample companies is 0.29 times, which indicates that total liabilities constitute an insignificant percentage of the capital structure. A low level of leverage may also indicate that a company has increased profits, which can be utilized for CSR activities for the betterment of society. Table 1 further reflects the average CSR disclosure, which is 74.58 percent, indicating that the selected companies in India have highly disclosed their CSR initiatives. The Pearson correlations among the variables highlight that the maximum correlation coefficients are found between ROA and the human capital variable. Similarly, the correlation between ROE and

ROA with the independent variable CSR disclosure is 0.025 and 0.040, respectively.

The correlation between the dependent variable, ROE, and intangible resources, viz., human capital, reputation, and R&D, is 0.348, 0.124, and 0.035, respectively. Similarly, the correlation between ROA and intangible resources, viz., human capital, reputation, and R&D, is 0.498, 0.066, and 0.065, respectively, which is much lower as compared to the standard of 0.80, indicating that the problem of multicollinearity does not exist.

4.2. Diagnostic tests

The fundamental regression diagnostic checks are used to identify the presence of stationarity, multicollinearity, autocorrelation, and homoscedasticity that can affect the efficiency of the estimators. The VIF-score of independent, tangible resources, and control variables is 1.15, representing that the multicollinearity problem is not found among the variables. Moreover, in Table 1, the correlation between the independent and dependent variables is lower than the standard, indicating no problem of multicollinearity. The problem of heteroscedasticity was also checked, and it was found that the data is homoscedastic. The values of the Durbin-Watson (DW) statistics for ROE and ROA are 2.27 and 2.39, respectively, which reflects that there is no autocorrelation among the variables. In addition to this, the Augmented Dickey-Fuller (ADF) test is employed to monitor the unit root presence in the data and find that the data is stationary.

4.3. Specification tests for the regression model

The redundant fixed effect is tested to choose a suitable model between pooled OLS regression and panel data regression. In the case of the dependent variable ROE, the statistical values (χ^2 value = 583.96, p-value = 0.000) and in the case of the dependent variable ROA, the statistical values (χ^2 value = 555.40, p-value = 0.000) signify that the panel data regression technique is more suitable in comparison to the pooled OLS technique. Similarly, the Hausman test is applied to choose the most suitable model between the random effect model (REM) and the fixed effect model (FEM). In the case of

dependent variable ROE, the statistical values ($\chi^2 = 18.66$, p-value = 0.004) and in the case of dependent variable ROA, the statistical values ($\chi^2 = 26.54$, p-value = 0.000) signify the selection of the FEM over the REM.

4.4. Empirical results and discussion

The specification tests have reflected that the FEM is the most appropriate method among all models for regression analyses, and the regression coefficients are statistically significant under the FEM model.

A positive and significant association is observed between CSR disclosures and corporations' financial performance. The results reflect that CSR disclosure has significantly and positively influenced the corporate financial performance determinants of ROE (p = 0.019) and ROA (p-value = 0.000). It implies that CSR disclosure can influence corporate profitability.

4.4.1. Empirical association between ROE and intangible resources

Table 2 highlights that the intangible resources, human capital (p-value = 0.013), and R&D (p-value = 0.050), have positively and significantly impacted the corporate financial performance (ROE). Whereas the corporate reputation (p-value = 0.000) has been significantly and negatively impacted. While the regression coefficients of size and leverage are insignificant, revealing that control variables do not influence the CSR disclosure and the financial performance association. Furthermore, the adjusted R-square (86.67 percent) and F-statistics (p-value = 0.0000) reflect that the fixed effects model is the best fit.

The significant and positive association between human capital and ROE with a regression coefficient of 0.9836 (p-value = 0.013) is in line with earlier studies that show that human capital facilitates a competitive edge over rivals and enhances profitability. The research of Chen et al. (2014) found that human capital influences a company's financial performance. Similarly, numerous researchers, such as Salman et al. (2012) and Amin (2018), found that human capital has positively and significantly impacted the ROE.

Table 2. Panel data regression results

Variable	Return on equity Panel (FEM)			Return on assets Panel (FEM)		
	Coefficient	t-statistic	Prob.	Coefficient	t-statistic	Prob.
CSR	0.1355	2.3573	0.019*	0.0945	3.4404	0.000*
HUC	0.9836	2.4926	0.013*	0.4742	2.5142	0.012*
CR	-0.1940	-49506	0.000*	-0.1076	-5.7440	0.000*
R&D	2.2481	1.9390	0.050*	2.0708	3.7364	0.000*
LEV	-4.9125	-1.5268	0.128	-2.7072	-1.7601	0.080**
Size	5.8080	1.6466	0.101	3.7262	2.2099	0.028*
Observations	243			243		
R-squared	0.9269			0.9378		
Adjusted R-squared	0.8867			0.9036		
F-statistic	12.023			27.387		
Prob. (F-statistic)	0.0000*			0.0000*		
Redundant fixed effect test						
Chi-Square Statistic	583.96			555.40		
Prob.	0.0000			0.0000		
Hausman test						
Chi-Sq. Statistic	18.6642			26.541		
Prob.	0.0048			0.0002		

Note: * Significant at a 5 percent level of significance. ** Significant at a 10 percent level of significance.

Further, a regression coefficient of -0.1940 (p-value = 0.000) reflects a significant but negative relationship between corporate reputation and ROE. Rose and Thomsen (2004) reported that corporate image had a negative influence on future profitability. Researchers such as Hall and Lee (2014) and Vig et al. (2017) revealed a negative link between firm performance (ROE) and corporate reputation.

A significant and positive link between R&D and ROE is observed with a regression coefficient of 2.2481 (p-value = 0.050). The findings are in concurrence with the earlier studies of Ozturk and Zeren (2015). Similarly, Ghaffar and Khan (2014), and Freihat and Kanakriyah (2017) observed that R&D investment has positively and significantly impacted corporate financial performance.

4.4.2. Empirical association between ROA and intangible resources

Table 2 shows that the intangible resources, human capital (p-value = 0.012), and R&D (p-value = 0.000), have significantly and positively influenced corporate financial performance (ROA). While the intangible resource of corporate reputation (p-value = 0.000) has a negative but significant influence. Moreover, the regression coefficients of leverage and size have also passed the significance test. The values of adjusted R-square (90.36 percent) and F-statistics (p = 0.0000) reflect the best fit of the fixed effects model.

The results further highlight that human capital has significantly and positively impacted the ROA with a regression coefficient of 0.4742 (p-value = 0.012), and these results are concurrent with the findings of Ting and Lean (2009), and Chu

et al. (2011). The current findings are in concurrence with earlier research showing that investment in human resources may be a source of competitive edge and can positively influence the ROA (Mondal & Ghosh, 2012; Amin, 2018). The results further highlight a significant but negative association between corporate reputation and the economic performance determinant ROA, with a regression coefficient of -0.1076 (p-value = 0.000). These results are in line with Blajer-Golebiewska (2014), and Hall and Lee (2014), which explored and identified a weak association. Similarly, Shi (2016) and Vig et al. (2017) observed that corporate reputation has no significant influence on ROA.

Furthermore, the study found significant and positive results for R&D and ROA linkage, with a regression coefficient of 2.070 (p-value = 0.000). R&D influences the economic performance of corporations operating in the pharmaceutical, automobile, information technology, and electronics sectors (Vivero, 2002) and also has a positive linkage between R&D investment and profitability (Cooper & Edgett, 2008). Austin (1993) observed that revelations of patent honors and an increase in R&D budgets enhanced the prices of shares. Similarly, Freihat and Kanakriyah (2017), and Ghaffar and Khan (2014) revealed that R&D influences the ROA positively and significantly.

4.5. Summary of the tested hypotheses

Table 3 highlights that based on the p-values the alternative hypotheses have been accepted at a given level of significance and are supported by the empirical literature.

Table 3. Summary results of the tested hypotheses

<i>Hypotheses</i>		<i>Description</i>	<i>p-values</i>	<i>Result</i>
<i>H1</i>	<i>H1a</i>	There is a statistically significant and positive association between CSR disclosures and ROE.	0.019	Supported
	<i>H1b</i>	There is a statistically significant and positive association between CSR disclosures and ROA	0.000	Supported
<i>H2</i>	<i>H2a</i>	Association between the human capital and ROE	0.013	Supported
	<i>H2b</i>	Association between the human capital and ROA	0.012	Supported
<i>H3</i>	<i>H3a</i>	Association between corporate reputation and ROE	0.000	Supported
	<i>H3b</i>	Association between corporate reputation and ROA	0.000	Supported
<i>H4</i>	<i>H4a</i>	Association between R&D and ROE	0.050	Supported
	<i>H4b</i>	Association between R&D and ROA	0.000	Supported

The p-values signify the acceptance of alternative hypotheses that CSR disclosures have an influence on ROE (p-value = 0.019) and ROA (p-value = 0.000); hence, *H1a* and *H1b* are accepted. Human capital acts as a value creator and is considered an imperative resource for a corporation that provides a competitive edge that enhances technological development and corporate productivity (Tayles et al., 2007). The current findings are consistent with the earlier research and found that human capital has significantly and positively impacted the ROE (p-value = 0.013) and ROA (p-value = 0.012); hence, *H2a* and *H2b* are accepted. Corporate image is a set of marketed sentiments about a corporation that are based on the company's capabilities in fulfilling the stakeholders' expectations with corporate harmony (Brammer et al., 2006). The present results are in concurrence with the earlier studies and found that corporate reputation has significantly and positively impacted

the ROE (p-value = 0.000) and ROA (p-value = 0.000); hence, *H3a* and *H3b* are accepted.

R&D activities enable the companies to earn a higher market share in the form of sales revenues, which sequentially enhance the ROA. Hence, there is an urgent need to concentrate on R&D investments and technological updates (Mizik & Jacobson, 2003). The current results are in consensus with the previous research found that R&D has significantly and positively impacted the ROE (p-value = 0.054) and ROA (p-value = 0.000); hence, *H4a* and *H4a* are accepted.

5. CONCLUSION

Unacquainted with the fact that there is no explicit and direct link between CSR disclosures and financial performance, numerous research studies explored the direct relationship. Moreover, such

studies have not clarified how CSR disclosures are negatively, positively, or neutrally associated with corporate financial performance. It has also been observed that, for examining the real influence of CSR disclosure on economic performance, moderators and mediators are supposed to be employed (Branco & Rodrigues, 2007). Therefore, further extensive research is required to elucidate the operationalization of intangible resources in the CSR and corporate financial performance linkage. Consequently, following these logical and rational claims in view of the research gap, the present study has hypothesized the three intangible resources as mediators to examine the effect of CSR disclosures on economic performance. The findings of the study reveal that human capital, research and development have significantly and positively impacted corporate financial performance. Hence, there is no direct linkage between CSR disclosures and economic performance; it is merely an indirect relationship mediated by a corporate intangible resource. The findings further reveal the strength of a research model that can facilitate a strong and direct linkage between CSR and financial performance. Thus, the present research also acknowledges that CSR activities, along with intangible resources, as part of corporate strategy will enable corporations to develop exceptional and superior value for their consumers and a favorable position in a competitive business environment. As a result, it could be acknowledged that CSR initiatives result in more financial benefits by reaping the advantages of companies' competitive resources.

Luo and Bhattacharya (2006) have explored the mediation impact of consumer satisfaction on this relationship and recognized that it has a mediating effect on the CSR disclosure and economic performance association. Likewise, Galbreath and Shum (2012) explored the moderating impact of corporate reputation in addition to consumer satisfaction on the linkage between CSR disclosure and profitability. Such findings reflected that the corporate image has a mediation effect on the CSR and corporate profitability associations. Similarly, Majeed (2011) linked the mediator to variable competitive advantage in addition to corporate reputation and found that corporations with an edge in competitive advantage enjoy better performance. Furthermore, CSR activities yield several potential benefits in terms of intangible

resources along with enhanced financial performance. Accordingly, the findings have supported the hypothesis that CSR disclosures have positively and significantly impacted financial performance, and all three intangible resources, namely, human capital, corporate reputation, and R&D, have a mediation impact on financial performance and the CSR disclosure association.

The findings of the current study are in consonance with the studies of developed nations that have also observed a positive impact of intangible resources on CSR disclosures and financial performance associations. The practical as well as theoretical contribution to the CSR domain provides insights for managers and policymakers to overcome the ambiguities concerning CSR disclosure and corporate performance associations. The CSR initiatives, along with the corporation's capacity to develop intangible resources, will improve the corporation's economic performance. Moreover, a contribution is made to the pool of literature by equipping a conceptual framework that facilitates explaining the mediation impact of intangible resources on the said association. From a practical perspective, Papagiannakis and Lioukas (2012) also opined that managers' insight, perceptions, and attitudes play an imperative role in the company's CSR initiatives, especially environmental issues. Accordingly, it contributes to enhancing the consciousness and knowledge of Indian corporations' managers about the significance of CSR initiatives as a strategy that improves financial strength and provides a competitive edge over rivals.

Since, the present study has concentrated on the Indian manufacturing and consumer goods sectors; further research with a special focus on the service sector is required to be explored. Furthermore, the study suggests that future investigations must be conducted in other Asian and developing countries, along with comparisons among different industries. Moreover, in addition to the three intangible resources, other intangible resources must be employed to expand the sphere of the study. Based on the research model, the mediation role of intangible assets in such associations can be investigated in both directions, Asian and developing countries. More measures and indicators of corporate financial performance may be included in the study. Moreover, the sample size and the period of study may be increased to five years or more.

REFERENCES

1. Alafi, K., & Alsufy, F. (2012). Corporate social responsibility associated with customer satisfaction and financial performance a case study with Housing Banks in Jordan. *International Journal of Humanities and Social Science*, 2(15), 102-115. <https://www.ijhssnet.com/journal/index/1182>
2. Amin, S. (2018). Does the entrepreneurial human capital is important for organizational performance? *Business and Economics Journal*, 9(350), 2-12. <https://doi.org/10.4172/2151-6219.1000350>
3. Aras, G., Aybars, A., & Kutlu, O. (2010). Managing corporate performance. *International Journal of Productivity and Performance Management*, 59(3), 229-254. <https://doi.org/10.1108/17410401011023573>
4. Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of Management Journal*, 28(2), 446-463. <http://surl.li/mwshe>
5. Austin, D. H. (1993). An event-study approach to measuring innovative output: The case of biotechnology. *The American Economic Review*, 83(2), 253-258. <https://www.jstor.org/stable/2117673>
6. Ballester, M., Livnat, J., & Sinha, N. (2002). Tracks. *Journal of Accounting, Auditing & Finance*, 17(4), 351-373. <https://journals.sagepub.com/doi/epdf/10.1177/0148558X0201700404>

7. Besser, T. L., & Miller, N. (2001). Is the good corporation dead? The community social responsibility of small business operators. *The Journal of Socio-Economics*, 30(3), 221-241. [https://doi.org/10.1016/S1053-5357\(01\)00094-4](https://doi.org/10.1016/S1053-5357(01)00094-4)
8. Blajer-Golebiewska, A. (2014). Corporate reputation and economic performance: The evidence from Poland. *Economics & Sociology*, 7(3), 194-207. <https://doi.org/10.14254/2071-789X.2014/7-3/15>
9. Bonuedi, A., Ofori, D. F., & Simpson, S. N. Y. (2020). Corporate social responsibility reporting and stakeholder management in an emerging market: Perspective of CSR executives. *Corporate & Business Strategy Review*, 1(2), 66-81. <https://doi.org/10.22495/cbsrv1i2art5>
10. Bowman, E. H., & Haire, M. (1975). A strategic posture toward corporate social responsibility. *California Management Review*, 18(2), 49-58. <https://doi.org/10.2307/41164638>
11. Brammer, S., Brooks, C., & Pavelin, S. (2006). Corporate social performance and stock returns: UK evidence from disaggregate measures. *Financial Management*, 35(3), 97-116. <https://doi.org/10.1111/j.1755-053X.2006.tb00149.x>
12. Branco, M. C., & Rodrigues, L. L. (2007). Issues in corporate social and environmental reporting research: An overview. *Issues in Social and Environmental Accounting*, 1(1), 72-90. <https://iiste.org/Journals/index.php/ISEA/article/view/894/815>
13. Carroll, A. B. (2008). A history of corporate social responsibility: Concepts and practices. In A. Crane, D. Matten, A. McWilliams, J. Moon, & D. S. Siegel (Eds.), *The Oxford handbook of corporate social responsibility* (pp. 19-46). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199211593.003.0002>
14. Chen, C. J., Liu, T. C., Chu, M. A., & Hsiao, Y. C. (2014). Intellectual capital and new product development. *Journal of Engineering and Technology Management*, 33, 154-173. <https://doi.org/10.1016/j.jengtecman.2014.06.003>
15. Chu, S. K. W., Chan, K. H., & Wu, W. W. (2011). Charting intellectual capital performance of the gateway to China. *Journal of Intellectual Capital*, 12(2), 249-276. <https://doi.org/10.1108/14691931111123412>
16. Coelho, R., Jayantilal, S., & Ferreira, J. J., (2023). The impact of social responsibility on corporate financial performance: A systematic literature review. *Corporate Social Responsibility and Environmental Management*, 30(4), 1535-1560. <https://doi.org/10.1002/csr.2446>
17. Cooper, R. G., & Edgett, S. J. (2008). Maximizing productivity In product innovation. *Research-Technology Management*, 51(2), 47-58. <https://doi.org/10.1080/08956308.2008.11657495>
18. DiSegni, D. M., Huly, M., & Akron, S. (2012). Corporate social responsibility, environmental leadership, and financial performance. *Social Responsibility Journal*, 11(1), 131-148. <https://doi.org/10.1108/SRJ-02-2013-0024>
19. Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review*, 20(1), 65-91. <https://doi.org/10.5465/amr.1995.9503271992>
20. Ehsan, S., & Kaleem, A. (2012). An empirical investigation of the relationship between corporate social responsibility and financial performance (Evidence from manufacturing sector of Pakistan). *Journal of Basic and Applied Scientific Research*, 2(3), 2909-2922. [https://www.textroad.com/pdf/JBASR/J.%20Basic.%20Appl.%20Sci.%20Res.%202\(3\)2909-2922,%202012.pdf](https://www.textroad.com/pdf/JBASR/J.%20Basic.%20Appl.%20Sci.%20Res.%202(3)2909-2922,%202012.pdf)
21. Freihat, A. R. F., & Kanakriyah, R. (2017). Impact of R&D expenditure on financial performance: Jordanian evidence. *European Journal of Business and Management*, 9(32), 73-83. <https://www.iiste.org/Journals/index.php/EJBM/article/view/39612/40731>
22. Galbreath, J., & Shum, P. (2012). Do customer satisfaction and reputation mediate the CSR-FP link? Evidence from Australia. *Australian Journal of Management*, 37(2), 211-229. <https://journals.sagepub.com/doi/epub/10.1177/0312896211432941>
23. Garriga, E., & Mele, D. (2004). Corporate social responsibility theories: Mapping the territory. *Journal of Business Ethics*, 53(1-2), 51-71. <https://doi.org/10.1023/B:BUSL.0000039399.90587.34>
24. Ghaffar, A., & Khan, W. A. (2014). Impact of research and development on firm performance. *International Journal of Accounting and Financial Reporting*, 4(1), 357-367. <https://doi.org/10.5296/ijaf.v4i1.6087>
25. Gi, T., Vakilbashi, A., & Zamil, N. (2015). The relationship between corporate social responsibility and financial performance: A literature review. *Journal of Advanced Review on Scientific Research*, 10(1), 34-43. https://www.akademibaru.com/doc/ARSRV10_N1_P34_43.pdf
26. Hall, E., & Lee, J. (2014). Assessing the impact of firm reputation on performance: An international point of view. *International Business Research*, 7(12), 1-13. <https://doi.org/10.5539/ibr.v7n12p1>
27. Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of accounting and public policy*, 24(5), 391-430. <https://doi.org/10.1016/j.jaccpubpol.2005.06.001>
28. Hull, C. E., & Rothenberg, S. (2008). Firm performance: The interactions of corporate social performance with innovation and industry differentiation. *Strategic Management Journal*, 29(7), 781-789. <https://doi.org/10.1002/smj.675>
29. Kamath, B. (2008). Intellectual capital disclosure in India: Content analysis of "Teck" firms. *Journal of Human Resource Costing & Accounting*, 12(3), 213-224. <https://doi.org/10.1108/14013380810919859>
30. Kaur, N., & Singh, V., (2021). Empirically examining the impact of corporate social responsibility on financial performance: evidence from Indian steel industry. *Asian Journal of Accounting Research*, 6(2), 134-151. <https://doi.org/10.1108/AJAR-07-2020-0061>
31. Kostyuk, A., Kostyuk, O., Mozghovyi, Y., & Kravchenko, Y. (2013). Corporate social responsibility index for Ukrainian banks: The essentials for implementation. *Corporate Ownership & Control*, 10(4-4), 434-445. <https://doi.org/10.22495/cocv10i4c4art6>
32. Lin, C. H., Yang, H. L., & Liou, D. Y. (2009). The impact of corporate social responsibility on financial performance: Evidence from business in Taiwan. *Technology in Society*, 31(1), 56-63. <https://doi.org/10.1016/j.techsoc.2008.10.004>
33. Luo, X., & Bhattacharya, C. B. (2006). Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing*, 70(4), 1-18. <https://journals.sagepub.com/doi/epub/10.1509/jmkg.70.4.001>
34. Mahoney, L., & Roberts, R. W. (2007). Corporate social performance, financial performance and institutional ownership in Canadian firms. *Accounting Forum*, 31(3), 233-253. <https://doi.org/10.1016/j.accfor.2007.05.001>
35. Majeed, S. (2011). The impact of competitive advantage on organizational performance. *European Journal of Business and Management*, 3(4), 191-196. <https://www.iiste.org/Journals/index.php/EJBM/article/view/306/193>

36. Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly*, 48(2), 268–305. <https://journals.sagepub.com/doi/epdf/10.2307/3556659>
37. McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *Academy of Management Review*, 26(1), 117–127. <https://doi.org/10.5465/amr.2001.4011987>
38. Mizik, N., & Jacobson, R. (2003). Trading off between value creation and value appropriation: The financial implications of shifts in strategic emphasis. *Journal of Marketing*, 67(1), 63–76. <https://doi.org/10.1509/jmkg.67.1.63.18595>
39. Mondal, A., & Ghosh, S. K. (2012). Intellectual capital and financial performance of Indian banks. *Journal of Intellectual Capital*, 13(4), 515–530. <https://doi.org/10.1108/14691931211276115>
40. Mulki, J. P., & Jaramillo, F. (2011). Ethical reputation and value received: Customer perceptions. *International Journal of Bank Marketing*, 29(5), 358–372. <https://doi.org/10.1108/02652321111152891>
41. Musviyanti, Iskandar, R., Pattisahusiwa, S., & Ratnasari, W. I. (2022). Corporate social responsibility practices versus firm value: An exploration study. *Corporate Governance and Organizational Behavior Review*, 6(4), 80–86. <https://doi.org/10.22495/cgobrv6i4p7>
42. Naik, P. K., Narayanan, K., & Padhi, P. (2014). R&D intensity and market valuation of firm: A study of R&D incurring manufacturing firms in India. *Journal of Studies in Dynamics and Change*, 1(7), 295–308. <https://mp.ra.ub.uni-muenchen.de/37299/>
43. Nguyen, C. T., Nguyen, L. T., & Nguyen, N. Q. (2022). Corporate social responsibility and financial performance: The case in Vietnam. *Cogent Economics & Finance*, 10(1), Article 2075600. <https://doi.org/10.1080/23322039.2022.2075600>
44. Nimani, A., Zeqiraj, V., & Spahija, D. (2022). The importance of corporate social responsibility for companies: The developing market study [Special issue]. *Journal of Governance & Regulation*, 11(4), 314–320. <https://doi.org/10.22495/jgrv11i4siart11>
45. Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24(3), 403–441. <https://doi.org/10.1177/0170840603024003910>
46. Ozturk, E., & Zeren, F. (2015). The impact of R&D expenditure on firm performance in manufacturing industry: Further evidence from Turkey. *International Journal of Economics and Research*, 6(2), 32–36. [https://ijeronline.com/documents/volumes/2015/Vol%206%20Iss%2002%20MA%202015/ijer%20v6%20i3%20ma%20\(4\).pdf](https://ijeronline.com/documents/volumes/2015/Vol%206%20Iss%2002%20MA%202015/ijer%20v6%20i3%20ma%20(4).pdf)
47. Papagiannakis, G., & Lioukas, S. (2012). Values, attitudes and perceptions of managers as predictors of corporate environmental responsiveness. *Journal of Environmental Management*, 100, 41–51. <https://doi.org/10.1016/j.jenvman.2012.01.023>
48. Reverte, C. (2009). Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of Business Ethics*, 88(2), 351–366. <https://doi.org/10.1007/s10551-008-9968-9>
49. Rose, C., & Thomsen, S. (2004). The Impact of Corporate Reputation on Performance: Some Danish Evidence. *European Management Journal*, 22(2), 201–210. <https://doi.org/10.1016/j.emj.2004.01.012>
50. Rowley, T., & Berman, S. (2000). A brand new brand of corporate social performance. *Business & Society*, 39(4), 397–418. <https://doi.org/10.1177/000765030003900404>
51. Salman, R. T., Mansor, M., Babatunde, A. D., & Tayib, M. (2012). Impact of intellectual capital on return on asset in Nigerian manufacturing companies. *Interdisciplinary Journal of Research in Business*, 2(4), 21–30.
52. Shabbir, M. S., Aslam, E., Irshad, A., Bilal, K., Aziz, S., Abbasi, B. A., & Zia, S. (2020). Nexus between corporate social responsibility and financial and non-financial sectors' performance: A non-linear and disaggregated approach. *Environmental Science and Pollution Research*, 27, 39164–39179. <https://doi.org/10.1007/s11356-020-09972-x>
53. Shi, Y. (2016). Reputation, financial performance, and industry competition. *The International Journal of Business and Finance Research*, 10(2), 1–16. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2752653
54. Tayles, M., Pike, R. H., & Sofian, S. (2007). Intellectual capital, management accounting practices and corporate performance: Perceptions of managers. *Accounting, Auditing & Accountability Journal*, 20(4), 522–548. <https://doi.org/10.1108/09513570710762575>
55. Ting, I. W. K., & Lean, H. H. (2009). Intellectual capital performance of financial institutions in Malaysia. *Journal of Intellectual Capital*, 10(4), 588–599. <https://doi.org/10.1108/14691930910996661>
56. Van Beurden, P., & Gössling, T. (2008). The worth of values — A literature review on the relation between corporate social and financial performance. *Journal of Business Ethics*, 82(2), 407–424. <https://doi.org/10.1007/s10551-008-9894-x>
57. Vig, S., Dumičić, K., & Klopotan, I. (2017). The impact of reputation on corporate financial performance: Median regression approach. *Business Systems Research Journal*, 8(2), 40–58. <https://doi.org/10.1515/bsrj-2017-0015>
58. Vivero, R. L. (2002). The impact of process innovations on firm's productivity growth: the case of Spain. *Applied Economics*, 34(8), 1007–1016. <https://doi.org/10.1080/00036840010019684>
59. Waddock, S. A. (1996). Strategy, structure, and social performance: Implications of the W-form enterprise. *Business and the Contemporary World*, 8, 43–51.
60. Whiting, R. H., & Woodcock, J. (2011). Firm characteristics and intellectual capital disclosure by Australian companies. *Journal of Human Resource Costing & Accounting*, 15(2), 102–126. <https://doi.org/10.1108/14013381111157337>