

Article

Does Corporate Social Responsibility Fuel Firm Performance? Evidence from the Asian Automotive Sector

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Abstract: Corporations are now expected to self-regulate in order to uphold their social obligations to society. This is known as the social responsibility of corporations or corporate social responsibility. CSR helps a business to be mindful of the impacts it has on the economy, society, and environment. The most important CSR component for the automotive industry is unquestionably environmental responsibility. Despite the fact that many businesses still place a strong emphasis on economic responsibility, it is widely acknowledged that all three CSR elements are essential for the success of a firm. This study's objective is to look into the effects of corporate social responsibility (CSR) on business performance in the automobile sector, with an emphasis on Asian nations. Sample companies were selected from the Thomson Reuters database according to the data availability on corporate social performance and firm performance for more than 10 years. Data analysis was performed using the software STATA. Fixed and random effects panel regression models were used to analyse the relationships. The findings of this study are consistent with the idea that corporate social responsibility considerably improves the performance of automobile companies. The study concludes that companies need to focus more on CSR spending, as it improves the financial performance of the company. The study contributes to the existing literature as it validates the strong relationship between CSR components and firm performance in the automobile sector, which has not been much explored in the extant literature. The results of the panel data regression demonstrated that not only the environmental score is significant in determining the firm performance; other components such as social and governance scores are also equally important in achieving the desired firm performance, which is totally against the common notion that since automobile firms cause much damage to the environment, they need to focus only on environmental aspects through their CSR initiatives.

Keywords: corporate social responsibility; firm performance; social performance; environmental performance; governance performance



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1. Introduction

The self-regulatory business model known as corporate social responsibility (CSR) may assist a corporation in upholding its social responsibility. CSR helps a business to be mindful of the impacts it has on the economy, society, and environment. Combining economic progress, social justice, and environmental preservation is the overarching purpose of CSR. A corporation may make sure that its economic growth benefits everyone—including the company, its stakeholders, and the general public—by emphasising its social responsibility initiatives. Therefore, a responsible business aspires to support economically effective, socially equitable, and environmentally sustainable development while assuring its own financial success and economic expansion. Corporate social responsibility (CSR) is widely regarded as a performance inducer since it fosters innovation, reduces costs, and encourages unity among employees around a worthwhile endeavour. An organisation can gain a number of competitive advantages with the help of a properly implemented CSR concept, including increased sales and profits, better access to capital and markets, lower operational costs, higher productivity and quality standards, a more effective human resource base, a better reputation for the brand, increased customer loyalty, and improved

decision-making capacity and risk management practices. The four primary subfields of the term “corporate social responsibility” are environmental, philanthropic, ethical, and economic responsibilities. It is possible to characterise the goals of CSR more accurately by becoming familiar with its different forms, which enables businesses to align their operations with the theory of sustainable development. The environmental and economic pillars of social responsibility are the most significant ones for the automobile sector. Though many companies still place a heavy focus on the economic aspect, all four CSR pillars are essential for the sustainable performance of a firm. It is also important to understand how contextual factors such as the size and age of the firm influence business performance in the automotive sector. In addition to growth in client demand, it is important to note that the implementation of CSR initiatives, particularly those pertaining to ethics, may greatly increase employee satisfaction by abiding to social responsibility standards. This leads to increased productivity, and productivity has a direct impact on earnings.

The adoption of socially responsible behaviours is a crucial goal for the automotive sector [1]. This sector, which is frequently criticised for being among the most polluting of all economic activities, especially because of the greenhouse gas emissions from its products, aims to regain its good name by creating products that are clean(er), increasing its recycling rate, and enhancing the environmental performance of its manufacturing processes. In terms of the social component of corporate social responsibility (CSR), the aim is to increase road safety and, in nations where cars are manufactured, to protect jobs and the wage–labour nexus [2]. Despite an abundance of studies and analytical works [2–4], the underpinnings of firms’ active commitment to CSR remain mostly unresolved. The overall importance of perceived CSR for automobile consumer satisfaction suggests that in the automobile sector, CSR may not only directly contribute to better financial performance by lowering costs and risks [5,6] but may also indirectly increase consumer satisfaction and perceived value, potentially attracting socially conscious consumers [7,8]. The automotive sector has adopted and internationally accepted environmental management strategies. Similar societal norms which would eliminate difficult working conditions are still lacking [9–11]. The automotive industry is one of the most globally diversified industries, with a very active market, fierce competition, and significant pricing and cost pressure. It is in the midst of a profound transformational struggle toward cleaner energy with new kinds of mobility on the horizon, and society is becoming increasingly aware of its negative effects. To combat climate change, it must become more watchful, demanding, and more strictly regulated [12]. Drawing from the abovementioned literature and stakeholder theory [13], it is assumed that it is important to explore the relationship between corporate social responsibility and firm performance in the automotive sector.

2. Literature Review

According to [14], businesses can benefit from investments in social and environmental programmes that are in line with stakeholder theory and resource-based theory, although the success of these initiatives will depend on the strategic profiles of individual businesses. When used in conjunction with an innovative prospector-style strategy, the advantages of CSR appear to outweigh the expenses. When CSR advancements are coupled with the appropriate corporate strategy, they are favourably correlated with future profitability. The effectiveness of CSR initiatives is enhanced by both growth and prospector strategies. Overall, CSR is only cost-effective when linked with certain business strategies that allow for value-adding strategic CSR. Ref. [15] discovered that hotel CSR initiatives for strategic philanthropy can have a detrimental impact on the performance of hotel companies. This finding goes against the stakeholder theory’s assertion that CSR engagement and corporate value are positively correlated [16]. Additionally, this outcome differs from those of previous studies, such as in [17], where hotel CSR was studied for strategic philanthropy in detail and it was concluded that there was a beneficial effect of CSR on hotel stock value during the pandemic. Ref. [18] claimed that both the societal and environmental aspects of CSR are positively associated to financial performance and can help a developing country’s

economy to flourish. Ref. [19] also made this claim. According to research on the positive impact of stock listing on CSR, listed companies with frequently reviewed performances by many stakeholders exhibit better levels of CSR than non-listed companies. The financial performance of listed corporations is superior to that of non-listed ones because of this monitoring and exposure to numerous stakeholders.

According to neoclassical theory, socially conscious businesses incur extra expenses, which theoretically has a detrimental impact on their financial performance [20]. Stakeholder theory, on the other hand, recommends that businesses maintain positive connections with all stakeholders [21]. Therefore, it is anticipated that socially conscious businesses would have higher financial returns through indirect processes such as hiring more competent workers or developing moral capital [22,23]. Though a positive association between corporate social responsibility disclosure and company size was established in one of the few studies looking into the relationship in Turkey, there is little evidence of a meaningful connection between CSR and financial performance [24]. A meta-analysis in [25] reported that around 60 percent of studies revealed a positive relationship between CSR and financial performance, while nearly 15 percent found a negative relationship, and the remaining 25 percent of studies disclosed no relationship at all. In another study [26], a positive relationship between corporate social responsibility and financial performance was reported, especially when reputation was used as an indicator for corporate social responsibility. Samira et al. [27] demonstrated in their study on the impact of CSR on the financial performance of agribusiness industries in Bangladesh that return on assets (ROA) has no significant impact on financial performance. More illustrative findings came from the studies [28–30], which concluded that there is no relationship between CSR and business performance. However, Ref. [31] concluded that it is not clear whether there is an existing relationship between CSR and business performance. Thus, we propose that there is no relationship between corporate social performance and accounting measures of firm performance such as return on assets and return on equity.

A company's corporate social responsibility programme will have a favourable impact on the operational competitive performance of the company in terms of cost, quality, flexibility, and delivery performance as well as overall performance [32]. An integrated theoretical framework was developed in [33] to explain how institutional investors' investment horizon, the corporate governance structure, and the sustainability of the relationship between corporate social responsibility (CSR) and business performance all function together. The model explained how the inclusion of institutional investors in the firm's ownership structure and corporate governance mechanism can either strengthen or weaken the positive relationship between corporate social responsibility and firm performance. The hushed charitable donations made by business organisations positively influence their financial performance. Additionally, firm size and CEO salary moderate the relationship between silent donations and firm performance [34].

Mandatory corporate social responsibility investment requirements strengthen business-specific benefits for the primary CSR firm, such as brand recognition and networking power, in addition to advancing social development among communities and social governance interactions with the government. Firm-specific advantages therefore affect financial performance and competitive advantage since social policies account for a firm's expenditures [35]. Confirming to institutional theory, a statistically significant positive relationship was identified between corporate social responsibility expenditure and the financial performance of listed firms in India [36]. The study conducted in [37] investigated how corporate social responsibility influenced the financial performance of listed firms in Vietnam between 2012 and 2017. The study examined the relationship from three dimensions, namely economic, environmental, and social responsibilities, and revealed that CSR disclosure generally has a negative effect on firm performance.

Al-Shammari [38] examined the potential moderating effects of institutional investors as well as corporate reputation, which serves as a proxy for a firm's publicised social initiatives. The article suggests that institutional investors and reputation will have favourable

effects on the link between CSR and corporate success. As a result, when a company enjoys a positive reputation among its key stakeholders, it will profit from CSR initiatives the most. The impact of institutional owners is anticipated to affect the connection between CSR efforts and company performance in a favourable way. Overall, the article makes the case that a corporation's ability to profit from its CSR efforts would depend on its corporate ownership structure and consistent reputation, which would open up a new area of study for governance structure research in relation to CSR and firm performance. Whaheed et al. outlined a comprehensive theoretical framework to explain how institutional investors' investment horizon, the corporate governance structure, and the relationship between corporate social responsibility (CSR) and business performance may be sustained. The proposed model explains how the inclusion of institutional investors in the firm's ownership structure and corporate governance mechanism can either strengthen or weaken the positive relationship between CSR and firm performance that has been established on the basis of the stakeholder and corporate citizenship theories. In a study addressing the degree of readiness of manufacturing companies in the well-defined area of Transylvania, Romania, for tackling the challenges of the low-carbon economy [39], it was concluded that corporate social responsibility activities are essential to enhance the awareness among automobile companies to reduce the challenge associated with low-carbon emission.

The paper by Famiyeh [32] demonstrated that CSR initiatives by enterprises will have a positive association with the operational competitive performance of the firms in terms of cost, quality, flexibility, and delivery performance as well as overall performance according to data from firms in Ghana. The findings of [40], based on data from a sample of publicly traded Chinese manufacturing companies, indicate that CSR technique is negatively correlated with firm performance, CSR content is positively correlated with firm performance, and value appropriation positively moderates the relationships between all three CSR dimensions and firm performance. Numerous studies looked empirically at the relationship between corporate social responsibility and firm performance. Studies based on developed countries have often revealed a favourable association between firm performance and corporate social responsibility. A recent study [41] evaluated the contribution of innovation and corporate social responsibility (CSR) initiatives to a company's financial success. The goal of this link's theoretical and empirical analyses was to emphasise the significance of these strategic alternatives in both the management and public policy fields. Managers will be able to make better strategic judgments if they have more information on the economic return of these approaches. The necessary data will be understood by policymakers in order to include CSR in policy packages. Data on the 1000 biggest firms listed on stock exchanges worldwide were gathered from the Thomson Reuters Eikon Datastream database in order to answer the research question. The economic findings were then generated using hierarchical linear regressions. To address temporospatial patterns, two time periods (2015–2019) were contrasted. Participating in CSR activities incurs extra expenses that, if improperly supported by public policy, might harm the company's financial success. The most effective approach for businesses looking to boost their financial success while being socially responsible appears to be a combination of CSR and innovation. However, the literature also includes several studies showing a negative relationship between these variables [42]. Moreover, a systematic review of more than 170 journal articles on the relationship between corporate social responsibility and organisational performance [43] revealed that the direction of the relationship between these constructs still remains inconclusive. Thus, this study intends to fill this research gap and to explore how corporate social responsibility influences firm performance in the automobile sector, which is in fact responsible for substantial environmental pollution in the world and thus contributes to climate change to a greater extent.

3. Materials and Methods

This study's aim is to determine how corporate social responsibility impacts business performance in the automobile sector. This study's research design is descriptive in nature.

The population was taken as automobile companies in Asian countries, of which there are 97 altogether. Sample companies were selected according to the data availability on corporate social performance and firm performance for more than 10 years. Accordingly, 21 automobile companies were selected from Asian countries to constitute the study sample. The purposive sampling technique was used as only companies with more than 10 years' available data in the database were targeted. To select the sample companies from the automobile sector, the Nomenclature of Economic Activities (NACE) Codes of different sectors were used, and thus, companies involved in the sale, maintenance, and repair of motor vehicles and motorcycles (NACE-50); the manufacture of motor vehicles, trailers, and semi-trailers (NACE-34); and the wholesale and retail trade and repair of motor vehicles and motorcycles (NACE-45) were used for data collection. Data were collected from the Thomson Reuters database. The final sample consisted of 21 companies from the automobile sector, spread over 7 Asian countries including India, China, Hong Kong, Japan, Singapore, South Korea, and Malaysia, which accounted for almost 22% of the population. Data on 8 variables have been used, such as ESG combined score, environmental score, social pillar score, governance pillar score, return on assets, return on equity, age of the firm, and firm size. For each variable, data for 12 years could be gathered; thus, the dataset consisted of 252 observations for each variable. The study covers data on the corporate social performance and firm performance of 21 Asian automobile companies during the 12-year period from 2009 to 2020. A balanced panel was used for the analysis. Data analysis was performed using the software STATA. Fixed and random effects panel regression models were used to analyse the connection between the variables, and the Hausman test was used to determine whether a fixed or random effects model should be used, with the null hypothesis that random effects are favoured.

Model Specification

Based on the available literature, the following panel regression model was developed to examine the link between corporate social responsibility and business performance in this study:

$$\text{Firm performance}_{it} = \beta_0 + \beta_1 \text{ESG}_{cit} + \beta_2 \text{ESG}_{eit} + \beta_3 \text{ESG}_{sit} + \beta_4 \text{ESG}_{git} + \beta_5 F_size_{it} + \beta_6 F_age_{it} + e_{it} \quad (1)$$

where β_0 is the constant; $\beta_1, \beta_2 \dots$ are the regression coefficients; ESG_{cit} is the ESG combined score; ESG_{eit} is the ESG environmental score; ESG_{sit} is the ESG social pillar score; ESG_{git} is the ESG governance pillar score; F_size_{it} is the firm size; F_age_{it} is the age of the firm; and e_{it} is the error term.

Variables and their description are given in Table 1.

Table 1. Description of variables—summary.

Panels	Description	Source
Panel A: CSR Indicators		
(1) ESG Combined Score	The mean value of social, environmental, and governance scores, with values ranging from 0 to 100	Thomson Reuters database
(2) Environmental Pillar Score	Environmental rating score	
(3) Social Pillar Score	Social rating score	
(4) Governance Pillar Score	Governance rating score	
Panel B: Firm’s Financial Performance		
(1) Percentage of Return on Assets (ROA%)	Net income to total assets (in percentages)	Thomson Reuters database
(2) Percentage of Return on Equity (ROE%)	Net income to book value of equity (in percentages)	
Panel C: Control Variables		
(1) Ln Age	The logarithm of number of years since the beginning of business	Thomson Reuters database
(2) Ln Size	The logarithm of sales value (in USD)	

4. Results

The aim of this study was to determine how CSR contributes to the financial performance of businesses in the automobile sector. To comprehend the link between the independent and dependent constructs, linear regression methodology was adopted.

4.1. Descriptive Statistics and the Coefficient of Correlation between the Variables

Table 2 displays the descriptive statistics for the variables.

Table 2. Descriptive statistics.

Indicators	Observation	Mean	Std. Dev.	Minimum	Maximum
ESGc	252	46.21	16.99	7.9	85.57
ESGe	252	38.68	13.52	3.59	87.63
ESGs	252	45.32	24.60	2.12	92.36
ESGg	252	56.04	21.32	13.56	97.85
ROA	252	0.07	0.08	−0.14	0.45
ROE	252	0.14	0.28	−3.00	1.31
Ln Age	252	3.10	0.72	0.00	3.85
Ln Size	252	20.44	2.61	16.07	25.45

Source: STATA output.

The independent factors were the ESG combined score, environmental pillar score, governance pillar score, and social pillar score, while the dependent variables were the return on assets (ROA) and return on equity (ROE). The age and size of the company were used as control variables. The ROA of the 21 companies (252 observations) was taken for research, and the analysis revealed a minimum value of −0.144 and maximum of 0.455, with a mean of 0.067 and standard deviation of 0.082. The minimum and maximum values of return on equity were −3 and 1.31, respectively, with a standard deviation of 0.276 and mean value of 0.136.

The ESG combined score had an average of 46.211 and a standard deviation of 16.989, with a minimum value of 7.9 and maximum value of 85.57. The average environmental pillar score was 38.68, with a standard deviation of 13.52. The governance pillar score had a minimum value of 13.56 and a maximum value of 97.85, with a standard deviation of 21.322 and mean of 56.036.

Control variables such as the age and size of the company were also taken for analysis. The age of the company had a minimum value of 0 and a maximum value of 3.85, with a standard deviation of 0.728 and mean of 3.1. The minimum company size was valued as 16.073 and the maximum was 25.447, with a mean of 20.44 and standard deviation of 2.61.

Table 3 shows the correlations between all the variables.

Table 3. Matrix of correlation.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) ROA	1.000							
(2) ROE	0.727	1.000						
(3) ESGc	−0.370	−0.181	1.000					
(4) ESGe	−0.239	−0.157	0.446	1.000				
(5) ESGg	−0.287	−0.162	0.494	0.476	1.000			
(6) ESGs	−0.312	−0.146	0.770	0.282	0.454	1.000		
(7) Ln Age	−0.426	−0.168	0.429	0.201	0.628	0.507	1.000	
(8) Ln Size	−0.258	−0.114	0.544	0.288	0.522	0.349	0.472	1.000

Source: STATA output.

4.2. Corporate Social Responsibility and Firm Performance—Model 1: Pooled OLS Regression

Pooled OLS regression was performed to understand how corporate social responsibility impacts a firm's performance as indicated by its return on assets. The results are given

in Table 4. The F statistic (15.696) confirmed the model fit. The r-squared value was 0.342, which means 34% of the variation in return on assets can be explained by the independent variable corporate social performance. The *p*-value was less than 0.05, which indicates that the null hypothesis, i.e., “there is no relationship between corporate social performance and return on assets”, was not statistically significant. Thus, it is assumed that return on assets in the automobile sector is really impacted by the corporate social performance of firms.

Table 4. Corporate social responsibility and firm performance—Model 1: Pooled OLS Regression.

Dependent Variables	R-Squared and Adjusted R-Squared	F Statistics and Model Significance	ROA	Coef.	St. Err.	t-Value	p-Value	Sig.
ROA	0.342 (0.293)	15.696 (0.000)	ESGc	0.301	0.116	−1.626	0.017	***
			ESGe	0.152	0.531	−2.346	0.042	***
			ESGg	−0.110	0.059	−2.295	0.023	***
			ESGs	0.275	1.047	−0.337	0.058	**
			Ln Age	0.379	0.007	−5.246	0.000	***
			Ln Size	0.102	1.002	0.894	0.065	**
			Constant	0.216	0.041	5.322	0.000	***
ROE	0.184 (0.132)	7.834 (0.006)	ESGc	0.417	0.002	−2.127	0.017	***
			ESGe	0.352	0.001	−1.327	0.042	***
			ESGg	−0.196	1.059	−2.872	0.023	***
			ESGs	−0.507	1.005	−1.396	0.058	**
			Ln Age	0.210	0.071	−3.672	0.000	***
			Ln Size	0.172	0.010	1.094	0.065	**
			Constant	0.382	0.418	3.271	0.000	***

Note: *** indicates significance at 5%; ** indicates significance at 10%. Source: STATA output.

When looking at the link between the various dimensions of corporate social performance and return on assets, the results were statistically significant. Hence, it can be assumed that a significant relationship exists between the various component scores of corporate social performance and return on assets. The governance pillar score and return on assets revealed a negative but significant relationship.

The age of the company was also significant at the 1% significance level. As there was a strong link between the age of the company and ROA, the null hypothesis was rejected.

In the ROE model, the F test result showed that the model fits the population with a value of 7.834, while the r-squared value was 0.184, which means only 18% of the variation in return on equity is caused by the ESG scores. Prob > F was 0.006 and all the variables were significant; hence, it can be concluded that the hypothesis that there is a correlation between corporate social responsibility and return on equity is not refuted by the model.

4.3. Corporate Social Responsibility and Firm Performance—Model 2: Random Effects Model

Model 2 illustrates the panel data regression results using a random effects model, with return on asset and return on equity as the dependent variables. The results are presented in Table 5.

Following panel data regression using random effects, all the corporate social responsibility indicators were significant at either the 5% or 10% level of significance. The age and size of the company also significantly contributed to the return on assets. As a result, the null hypothesis was disproved, and it was proven that there is a connection between corporate social responsibility and return on assets. The coefficient value of the governance score demonstrates that there is a negative relationship between the governance score and return on assets, while all the other relationships turned out to be positive.

In the return on equity model, all the indicators of corporate social responsibility were significant in explaining the dependent variable return on equity. At the 1% level of significance, the total ESG score, environmental score, and governance score were significant. However, the social pillar score was significant at the 95 percent level of confidence. As a result, the null hypothesis was disproved, and it was found that return

on equity and corporate social responsibility are related. The age of the company was significant at the 1% significance level, while company size was significant in explaining return on equity at the 5% level. As a result, it can be said that there is a correlation between a company's age and return on equity as well as its size and return on equity.

Table 5. Corporate social responsibility and firm performance—Model 2: Random Effects Model.

Dependent Variables	R-Squared and Adjusted R-Squared	F Statistics and Model Significance	ROA	Coef.	St. Err.	t-Value	p-Value	Sig.
ROA	0.402 (0.393)	10.585 (0.060)	ESGc	0.428	0.120	1.658	0.006	***
			ESGe	0.202	0.271	1.304	0.040	***
			ESGg	−0.253	0.038	−1.504	0.003	***
			ESGs	0.175	0.040	1.707	0.010	***
			Ln Age	0.170	1.017	−4.233	0.000	***
			Ln Size	0.131	1.120	0.768	0.045	***
			Constant	0.416	0.073	3.204	0.000	***
ROE	0.211 (0.128)	14.403 (0.000)	ESGc	0.311	0.041	−1.705	0.047	***
			ESGe	0.158	0.079	−2.377	0.022	***
			ESGg	−0.242	0.073	−1.064	0.043	***
			ESGs	0.263	1.871	−0.986	0.068	**
			Ln Age	0.110	0.005	−2.622	0.000	***
			Ln Size	0.272	0.007	2.190	0.073	**
			Constant	0.344	0.146	2.751	0.000	***

Note: *** indicates significance at 5%; ** indicates significance at 10%. Source: STATA output.

4.4. Corporate Social Responsibility and Firm Performance—Model 3: Fixed Effects Model

In Model 3, which displays the outcomes of panel data regression using a fixed effects model, the dependent variables were return on asset and return on equity. The results are presented in Table 6.

Table 6. Corporate social responsibility and firm performance—Model 3: Fixed Effects Model.

Dependent Variables	R-Squared and Adjusted R-Squared	F Statistics and Model Significance	ROA	Coef.	St. Err.	t-Value	p-Value	Sig.
ROA	0.402 (0.393)	2.552 (0.000)	ESGc	0.225	0.260	2.630	0.176	
			ESGe	0.300	0.117	0.263	0.189	
			ESGg	−0.153	0.005	−2.504	0.342	
			ESGs	0.145	0.091	2.843	0.000	***
			Ln Age	0.175	1.167	−1.405	0.042	***
			Ln Size	1.163	1.190	0.368	0.245	
			Constant	0.116	0.023	1.804	0.000	***
ROE	0.211 (0.128)	6.759 (0.000)	ESGc	0.371	0.141	−2.705	0.347	
			ESGe	0.276	0.179	−1.781	0.622	
			ESGg	−0.311	0.070	−0.864	0.243	
			ESGs	0.463	0.571	−1.986	0.030	**
			Ln Age	0.204	0.015	−3.622	0.000	***
			Ln Size	0.198	0.067	1.190	0.213	**
			Constant	0.138	0.167	2.709	0.000	***

Note: *** indicates significance at 5%; ** indicates significance at 10%. Source: STATA output.

With the exception of the social pillar score, all corporate social responsibility indicators were insignificant at either the 5% or 10% level of significance. The social pillar score had

statistical significance at the 5% level. The age and size of the company were also significant in contributing to the return on equity at the 5% level of significance. However, size was not significant in determining return on assets. The correlation between the social pillar score and corporate performance has been validated in the model. The findings show that the governance score and return on assets have a negative association, while all the other relationships turned out to be positive. We adopted the Hausman test for endogeneity to determine whether we should use the fixed or random effects model, with the null hypothesis that random effects are favoured. The Hausman test result revealed that the p -value was not significant ($p = 0.184$, $\text{Chisq} = 8.362$), and hence, the random effects model was selected. The result of this study revealed that not only the environmental score is significant for automobile firms; the other components of CSR, such as the governance pillar and social pillar scores, are also important in achieving better firm performance in the long run.

5. Discussions

This research was conducted in the automobile sector specifically in Asian countries. The overall corporate social performance of firms was calculated as the average of the environmental, social, and governance scores. To evaluate a firm's business performance, return on equity and return on assets were used. The study found a strong correlation among corporate social responsibility indicators and firms' business performance. The social component of ESG revealed an inverse relationship with company performance. To decide whether to accept the outcomes of the random effects model or fixed effects model, the Hausman specification test was applied. As the p -value for this study was greater than 0.05 ($p = 0.722$), the random effects model was chosen as the superior model. Three different models were run to examine the relationship between the variables. The first model was tested using linear regression analysis. The ROA model revealed that a significant relationship exists between the various component scores of corporate social performance and return on assets. The governance pillar score and return on assets were revealed to have a significant negative relationship. The ROE model also showed a relationship between corporate social responsibility and firm performance in terms of return on equity. A random effects model was applied in the second model to explain the relationship envisaged in the model. It was found that all the corporate social responsibility indicators were significant at either the 5% or 10% level of significance. The age and size of the company were also significant in contributing to the return on assets. As a result, it could be concluded that there is a connection between corporate social responsibility and firm performance. The third model revealed that, with the exception of the social pillar score, all corporate social responsibility indicators were insignificant at the 5% or 10% level of significance, while the social pillar score had statistical significance at the 5% level. The age and size of the company were also significant in contributing to the return on equity at the 5% level of significance. However, size was not significant in determining return on assets. The findings also validated that the governance score and return on assets have a negative association, while all the other relationships turned out to be positive. The findings reiterate the significant role of CRS activities in improving firms' performance in the automobile sector. However, the results of this study revealed that not only the environmental score is significant for these firms; the other components of CSR such as the governance pillar and social pillar scores are also important in achieving better firm performance. Corporate social responsibility efforts are a common and effective way for businesses to manage their reputations. Numerous studies have demonstrated how a positive company reputation increases consumer demand and, consequently, revenues. This study supports this opinion by pinpointing that corporate social responsibility positively influences firm performance in terms of return on assets and return on equity [39]. This study's uniqueness lies in the finding that it is important for automobile companies to focus on all aspects of corporate social responsibility, such as overall CSR, environmental score, governance score, and social

score, as investors generally perceive a higher level of financial risk in companies with few CSR activities.

6. Conclusions

This study aimed to look at how CSR impacts the financial performance of automobile companies in Asian countries. The majority of research on how CSR influences a company's performance is conducted in sectors besides the auto industry. Most studies on the topic concluded that an organisation's financial success is directly correlated to or favourably affected by its CSR score. However, several studies also concluded that CSR initiatives could have a negative impact on a company's financial performance. This study concludes that CSR ratings have a favourable effect on automobile companies in Asian countries. This outcome supports [18], which found that a positive correlation exists between financial performance and CSR. Furthermore, this result is in line with the findings of [14], which concluded that while investments in social and environmental programmes that are in line with the resource-based and stakeholder theories can give businesses a competitive advantage, the success of these initiatives will depend on the strategic profiles of individual companies. The findings of this study counter those of [15], which discovered that hotel CSR initiatives for strategic philanthropy can have a negative impact on the profitability of hotel enterprises. According to the study's conclusions, companies in the automotive industry should concentrate more on CSR spending because it can improve their financial success. Thus, the study contributes to the existing literature by providing evidence from the automobile sector, which has not yet been explored in the extant literature. These results are eye-opening for managers in the automobile sector as they provide evidence for the positive relationship between all the ESG components' scores and firm performance. The automobile sector is known to be a sector that causes much environmental harm, and therefore, the major CSR activities of firms in this sector are targeted towards the environment. Policy-level interventions are required to encourage more CSR initiatives targeting the governance and social pillars. The existing environmental contributions can be supplemented with more governance and social contributions to augment firms' performance in the long run.

The present study covers only data on the corporate social performance and firm performance of 21 Asian automobile companies during a 12-year period, from 2009 to 2020. Therefore, to assure the availability of additional observations for research, future researchers should concentrate on a wider geographic coverage. Future studies may examine the viability of adding additional measures of corporate social performance in addition to the ESG scores in order to more clearly explain how corporate social performance affects a firm's financial performance. Only accounting measures such as return on equity and return on assets were employed in this study as measures of firm performance. Future studies may concentrate on Tobin's Q and other business performance metrics as well.

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