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Corporate Social Responsibility and Financial Performance: Evidence from the Logistics and Distribution Industries in Korea

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Abstract

Purpose: This study aims to empirically investigate the impact of corporate social responsibility (CSR) on financial performance among firms in the logistics and distribution industries. **Research design, data and methodology:** The empirical analysis is based on panel data from 1,145 firm-year observations of logistics and distribution companies listed on the Korean stock exchange between 2011 and 2022. CSR performance is measured using two variables: (1) CSRD, a dummy variable indicating whether a firm is included in the top CSR group selected by the Korea Economic Justice Institute (KEJI); and (2) CSRS, a continuous score assigned by KEJI reflecting the intensity and quality of CSR activities. Multiple regression analyses were conducted to test the relationship between CSR engagement and ROA. **Results:** The analysis reveals that both CSRD and CSRS are positively associated with ROA. The CSRS variable also shows a positive effect at the 10% significance level. **Conclusions:** These findings provide empirical support for the view that CSR contributes to superior financial outcomes in industries where stakeholder trust, public reputation, and consumer loyalty are critical. The results align with stakeholder theory and the resource-based view, suggesting that CSR is not merely a reputational tool but a value-creating activity.

Keywords: Corporate Social Responsibility, Korea Economic Justice Institute Index, Financial Performance, Logistics and Distribution Industries

JEL Classification Code: M14, L81, L25

1. Introduction

Corporate Social Responsibility (CSR) has evolved from a discretionary philanthropic activity into a strategic imperative that influences both intangible and tangible aspects of firm performance. In modern business environments where stakeholder expectations are rising and social legitimacy plays an increasingly central role, CSR serves not only as an ethical commitment but also as a

potential source of financial value. This is particularly relevant in industries that directly or indirectly engage with consumers—such as the logistics and distribution sectors—where stakeholder perception, brand reputation, and trust can indirectly affect operational outcomes and resource allocation (Porter & Kramer, 2006).

The strategic value of CSR stems from its ability to cultivate intangible assets that are difficult for competitors to imitate. These include enhanced employee commitment,

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strengthened customer loyalty, and favorable public sentiment, all of which contribute to operational efficiency and improved financial outcomes (Barney, 1991; Freeman, 1984). While the logistics industry often operates under a business-to-business (B2B) model, reputation and relational capital remain vital, especially under rising ESG pressures and regulatory demands. CSR can thus serve as a signaling mechanism that improves firm legitimacy and stakeholder trust.

Empirical evidence has suggested that CSR initiatives, while often incurring short-term costs, can lead to long-term financial benefits by reducing risks and differentiating firms in saturated markets (Servaes & Tamayo, 2013; Fatemi et al., 2015). Despite an expanding body of literature examining the CSR–financial performance nexus, the findings remain mixed. While some studies report a significant positive relationship (Waddock & Graves, 1997; Orlitzky et al., 2003), others point to contingent effects based on industry characteristics, firm-specific factors, and stakeholder alignment (Hillman & Keim, 2001; McWilliams & Siegel, 2000).

Particularly in service-oriented or high-contact sectors, CSR visibility is believed to drive consumer preference and loyalty. However, logistics and distribution industries, despite their B2B nature, are also increasingly held to high sustainability and ethical standards. In Korea, CSR has gained traction as a governance-enhancing mechanism in response to corporate misconduct and rising societal demands. Previous Korean studies suggest that CSR can reduce information asymmetry, improve earnings quality, and enhance firm valuation (Kim et al., 2012; Cho et al., 2013).

Yet, limited empirical investigations have examined whether CSR contributes to internal operational efficiency, as captured by accounting-based indicators such as Return on Assets (ROA), within logistics and distribution industries. These sectors are characterized by high competition, low switching costs, and strong sensitivity to reputational damage—conditions under which CSR could exert meaningful influence.

This study addresses this research gap by analyzing the association between CSR and ROA for firms operating in Korea's logistics and distribution sectors from 2011 to 2022. The selected time frame reflects the most recent CSR data published by the Korea Economic Justice Institute (KEJI) as of 2025. ROA is used as the performance metric because it reflects managerial efficiency in asset utilization and is less volatile than market-based measures such as stock returns or Tobin's q . While the study does not imply causality, the consistent positive correlations observed across specifications suggest that CSR engagement is aligned with improved operational outcomes.

To emphasize the relevance of this research, Figure 1: Annual Mean CSR Scores in the Logistics and Distribution

Industries shows a clear upward trend since 2020, which may be attributed to post-pandemic institutional reforms and intensified ESG scrutiny. These developments make CSR an even more critical area of inquiry.

The organization of this paper is as follows. In Section 2, prior studies are reviewed and the research hypothesis is developed. Section 3 describes the empirical methodology and details the operational definitions of the variables employed to examine the hypothesis. Section 4 reports the outcomes of the empirical analysis along with their interpretation. Section 5 provides a discussion of the empirical findings in light of the study's objectives, and Section 6 concludes with final remarks and implications.

2. Theoretical Background and Research Hypothesis

The relationship between Corporate Social Responsibility (CSR) and financial performance has been extensively explored across multiple disciplines, including management, finance, and accounting. Several theoretical frameworks have been employed to explain how CSR can impact a firm's financial outcomes. Chief among them are stakeholder theory, the resource-based view (RBV), legitimacy theory, and signaling theory. Together, these frameworks provide a robust foundation for understanding how CSR initiatives, particularly in the logistics and distribution industries, can influence Return on Assets (ROA).

Stakeholder theory posits that firms are responsible not only to shareholders but also to a broader set of stakeholders, including customers, employees, suppliers, regulators, and communities (Freeman, 1984). By addressing the interests of these groups through CSR initiatives, firms can foster trust, reduce conflict, and enhance cooperative behavior, all of which contribute to improved financial performance. In industries with high consumer interaction, such as retail and services, the alignment between CSR activities and stakeholder expectations is particularly vital.

The resource-based view (RBV) complements stakeholder theory by suggesting that CSR can help firms develop valuable, rare, inimitable, and non-substitutable (VRIN) resources (Barney, 1991). These may include enhanced brand equity, superior employee morale, and reputational capital, which collectively contribute to operational efficiency and sustainable competitive advantage. In service-oriented sectors, where differentiation is often driven by customer experience and perceived quality, these intangible assets can significantly improve ROA.

Legitimacy theory offers a sociological perspective, asserting that firms must conform to societal norms and values to maintain their legitimacy and secure their social license to operate (Suchman, 1995). CSR acts as a vehicle

for aligning corporate behavior with public expectations, thereby reducing the risk of consumer backlash, regulatory penalties, or activist opposition. This alignment is particularly crucial in logistics and distribution sectors, where companies operate under intense public scrutiny.

Signaling theory further explains how CSR initiatives can communicate positive attributes about a firm's management quality, long-term orientation, and risk management capabilities (Connelly et al., 2011). By signaling commitment to ethical standards and social responsibility, firms may attract investors, customers, and employees who value these attributes, thus improving financial performance.

Empirical studies have largely supported the theoretical link between CSR and firm performance. Waddock and Graves (1997) found a positive relationship between CSR performance and ROA, while Fatemi et al. (2015) demonstrated that CSR engagement lowers the cost of capital and enhances firm valuation. Servaes and Tamayo (2013) emphasized that CSR's financial benefits are contingent upon customer awareness, which is particularly relevant for consumer-facing industries.

A meta-analysis by Orlitzky et al. (2003) further confirmed the positive association between CSR and accounting-based measures of financial performance, including ROA. Similarly, Luo and Bhattacharya (2006) showed that CSR improves customer satisfaction, which in turn boosts market value. Hillman and Keim (2001) differentiated between stakeholder management and social issue participation, concluding that only the former consistently enhances firm value.

Recent literature has also examined CSR specifically in the logistics sector. For instance, Chen et al. (2023) found that CSR practices positively influence supply chain performance, particularly through collaborative mechanisms. Govindan et al. (2021) showed that CSR performance is value-relevant across logistics firms internationally, highlighting its importance for both operational and market-based outcomes. Peng (2022) demonstrated that supplier-initiated CSR can increase buyer engagement, emphasizing the interorganizational dimension of CSR in supply networks. Yang and Jiang (2023) found that alignment between buyer and supplier CSR activities enhances firm performance, while Yoon, et al. (2024) provided updated empirical evidence on the positive financial impact of CSR in the Korean logistics and distribution market.

Contextual factors also play a significant role. Margolis and Walsh (2003) noted that industry, firm size, and market environment can moderate the CSR-performance relationship. McWilliams and Siegel (2000) argued that misspecification of models could explain some of the inconsistent findings in prior research. These observations highlight the importance of industry-specific analyses, such

as the present study's focus on logistics and distribution sectors.

In the Korean context, Kim et al. (2012) found that CSR is associated with higher earnings quality and reduced tax aggressiveness, both of which contribute to higher ROA. Cho et al. (2013) demonstrated that CSR reduces information asymmetry, thereby enhancing firm transparency and performance. Chih et al. (2008), using international financial data, found that CSR participation reflects strong internal governance, which correlates with superior financial outcomes.

Given the distinct characteristics of logistics and distribution industries—high consumer visibility, low switching costs, and reliance on trust and reputation—CSR is likely to have a more pronounced effect on ROA in these sectors. Unlike capital-intensive industries where tangible assets dominate, service and retail firms rely heavily on intangible assets developed through stakeholder engagement and brand loyalty.

Moreover, ROA serves as a suitable metric for evaluating CSR's financial impact, as it reflects a firm's efficiency in utilizing its asset base to generate income. Compared to market-based measures like Tobin's Q or stock price, ROA is less volatile and more directly linked to operational performance (Waddock & Graves, 1997).

Based on the theoretical arguments and empirical evidence discussed, this study posits the following hypothesis:

H1: CSR engagement among logistics and distribution firms is positively associated with firm performance.

3. Research Methodology

3.1. Korea Economic Justice Institute Index(KEJI Index)

The KEJI Index is a Corporate Social Responsibility (CSR) evaluation indicator that has been published annually since 1991 by the Korea Economic Justice Institute, affiliated with the Citizens' Coalition for Economic Justice (CCEJ) (Korea Economic Justice Institute [KEJI], n.d.).

Developed independently by the KEJI under the CCEJ, the KEJI Index is Korea's first corporate evaluation model designed to quantitatively measure non-financial values such as CSR. It is recognized by academia not only as a standard in CSR management research but also as a reputable indicator in the field of ESG studies. Specifically, the KEJI Index comprehensively assesses the level of CSR performance by evaluating companies across six key dimensions, with a total score based on a 100-point scale:

- (1) Soundness (35 points): Assessed through factors such as shareholder composition, investment and financial structure, and involvement in tax evasion or accounting fraud.
- (2) Fairness (20 points): Measured based on fair trade practices, relationships with partner companies, and transparency in internal disclosures.
- (3) Contribution to Social Welfare (15 points): Includes employment of disabled persons and women, charitable donations, and social welfare activities.
- (4) Consumer Protection (15 points): Evaluated based on after-sales service, product quality certifications, and customer satisfaction indices.
- (5) Environmental Responsibility (10 points): Focuses on environmental accounting disclosure, energy efficiency, and pollution reduction efforts.
- (6) Employee Satisfaction (15 points): Covers safety certifications, employee training, gender equality, and employee welfare programs.

The evaluation is conducted on companies listed on the KOSPI market of the Korea Exchange. However, firms that have changed their fiscal year, newly listed firms, merged entities, financial holding companies or holdings without direct business operations, public enterprises, real estate investment trusts under consignment management, firms with interest coverage ratios below the threshold, companies under administrative supervision or those that fail to submit required data, capital-impaired firms, and companies with consecutive net losses are excluded from the assessment. Consequently, CSR scores are assigned annually to approximately 200 to 300 eligible firms.

3.2. Research Model

This study empirically examines the impact of Corporate Social Responsibility (CSR) on the financial performance of firms operating in the logistics and distribution industries. The dependent variable, financial performance, is measured by Return on Assets (ROA), and the primary independent variables are the firm's CSR engagement status (CSRD) and CSR score (CSRS), which are incorporated into the regression analysis. The analytical model is specified as follows.

$$ROA_{i,t} = \beta_0 + \beta_1 CSRD + \beta_2 CSRS + \beta_3 SIZE + \beta_4 LEV + \beta_5 GROWTH + \beta_6 RND + \varepsilon_{i,t} \quad (1)$$

In this model, ROA represents the return on assets of firm *i* at time *t*, calculated as net income divided by total assets. CSR is measured using data provided by KEJI and is operationalized as either a binary variable (CSRD) or a continuous score (CSRS). CSRD is defined as 1 if the firm

is designated by KEJI as belonging to the group of top CSR-performing companies, and 0 otherwise. CSRS is measured as the total CSR score assessed by KEJI on a 100-point scale. If the estimated coefficient β_1 for the main variable of interest in the research model is significantly positive, it can be interpreted as supporting the hypothesis of this study that firms engaging in CSR activities achieve higher financial performance. Control variables include firm size (SIZE), leverage (LEV), growth (GROWTH), and research and development intensity (RND), each defined as follows: SIZE is the natural logarithm of total assets; LEV is the ratio of total liabilities to total assets; GROWTH is the year-over-year revenue growth rate; and RND is calculated as R&D expenditures divided by total sales. The qualitative composition of CSRS consists of six sub-components: corporate soundness (CSR1, 25 points), fairness in business practices (CSR2, 20 points), social contribution activities (CSR3, 15 points), customer protection (CSR4, 14 points), environmental protection (CSR5, 10 points), and employee satisfaction (CSR6, 15 points). These sub-indicators provide a detailed view of CSR performance and may serve as useful variables for further research on the disaggregated effects of CSR activities. The variables employed in the model are presented in Table 1.

Table 1: Variable Measurement

Variable	Measurement
CSRD	1 if a firm belongs to the top CSR firm groups selected by KEJI, otherwise 0
CSRS	CSR scores evaluated by the KEJI
ROA	Net Income/Total Assets
SIZE	Ln (Total Assets)
LEV	Total Liabilities/Total Assets
GROWTH	Revenue growth rate, capturing expansion potential.
RND	Research and development intensity, reflecting innovation investment, calculated as R&D expenditure relative to sales.
CSR1 (score)	Soundness (25)
CSR2 (score)	Fairness of firm activities (20)
CSR3 (score)	Social service activities (15)
CSR4 (score)	Customer protection (14)
CSR5 (score)	Environmental protection (10)
CSR6 (score)	Employee satisfaction (15)

3.3. Sample Selection

The empirical analysis focuses on firms operating in the logistics and distribution industry that were listed on the Korea Exchange during the period from 2011 to 2022. This time frame was chosen because the most recent CSR data published by the Korea Economic Justice Institute (KEJI) as of August 2025 covers up to the year 2022, and a 12-year span allows for a robust longitudinal analysis. To maintain

consistency and comparability across observations, the sample selection was restricted to companies whose fiscal year ends in December. Financial data for the analysis were retrieved from the TS2000 database. In order to mitigate the potential influence of extreme values and enhance the robustness of the results, all variables included in the empirical model were winsorized at the 1st and 99th percentiles. After applying these selection and adjustment criteria, the final dataset comprises a balanced panel of 1,145 firm-year observations used for regression analysis.

4. Empirical Analysis

4.1. Descriptive Statistics

Table 2 presents the descriptive statistics of the variables used in this study. Panel A shows summary statistics for the full sample, which consists of 1,145 firm-year observations from companies in the logistics and distribution industry. The main independent variable, CSRD, is a binary indicator that takes the value of 1 if a firm is classified as a top CSR performer by KEJI, and 0 otherwise. The average value of CSRD is 0.321, indicating that approximately 32.1% of firms in the sample belong to the high-performing CSR group designated by KEJI. The dependent variable, ROA, represents a firm’s net income relative to its total assets. The mean and median values of ROA are -0.002 and 0.017, respectively, suggesting that a number of firms in the sample exhibit low or even negative profitability. Among the control variables, LEV—the ratio of total liabilities to total assets—has a mean value of 0.485, implying that, on average, debt accounts for approximately 48.5% of total assets for firms in this industry. The GROWTH variable, measured as the year-over-year revenue growth rate, shows a mean of 4.399, suggesting strong expansion potential across the sample firms. The RND variable, calculated as R&D expenditure relative to sales, has a mean value of 0.001, indicating that firms in the logistics and distribution sector, on average, allocate approximately 0.1% of their sales to research and development.

Panel B presents the descriptive statistics for firms classified as top CSR performers in the logistics and distribution industry. As previously described, KEJI identifies these firms based on a comprehensive evaluation and publishes their scores through the KEJI INDEX. The variable CSRS represents each firm’s CSR score on a 100-point scale, with a mean score of 63.006, indicating that the average firm in this group received approximately 63 out of 100 points. The subcomponents of the CSR score—CSR1 (Soundness), CSR2 (Fairness), CSR3 (Social Service), CSR4 (Customer Protection), CSR5 (Environmental Protection), and CSR6 (Employee Satisfaction)—have

mean values of 16.811, 15.667, 6.440, 9.590, 5.438, and 9.105, respectively. These results suggest that the top CSR-performing firms generally exhibit a balanced distribution of CSR activities, with particularly strong performance in soundness and fairness.

Table 2: Descriptive Statistics

Panel A: Full Sample (n=1,145)					
Variable	Mean	Std	Min	Med	Max
CSRD	0.321	0.467	0.000	0.000	1.000
ROA	-0.002	0.095	-0.382	0.017	0.213
SIZE	20.335	1.770	17.326	20.266	24.272
LEV	0.485	0.210	0.017	0.488	0.928
GROWTH	4.399	27.558	-68.330	1.850	137.590
RND	0.001	0.005	0.000	0.000	0.060

Panel B: CSR Sample (n=368)					
Variable	Mean	Std	Min	Med	Max
CSRS	63.006	4.763	53.094	62.166	77.876
CSR1	16.811	1.993	11.512	16.707	26.890
CSR2	15.667	1.900	6.650	15.650	19.750
CSR3	6.440	1.819	3.507	6.502	12.043
CSR4	9.590	1.566	4.550	9.900	12.312
CSR5	5.438	1.352	3.583	5.083	10.250
CSR6	9.105	1.178	5.316	9.175	12.648

Note: Variable definitions: refer to Table 1.

Among firms in the logistics and distribution industries, this study identified those that actively engaged in corporate social responsibility (CSR) activities and were consequently included in the KEJI Index. For these firms, their assigned CSR scores were examined, and the annual average CSR scores were analyzed to assess trends over time. As illustrated in the trend graph, a notable increase in CSR activity was observed beginning in the 2020–2021 period, coinciding with the onset of the COVID-19 pandemic. This surge in CSR engagement can be attributed to the heightened expectations of stakeholders regarding corporate social responsibility during times of crisis, as well as a broader societal emphasis on environmental, social, and governance (ESG) values. In particular, the pandemic amplified concerns over supply chain disruptions, labor conditions, and community resilience, prompting companies to adopt more comprehensive and strategic approaches to CSR. Rather than viewing CSR as an optional or peripheral activity, firms increasingly integrated it into their core business strategies to strengthen stakeholder trust and ensure long-term sustainability. These findings suggest a paradigm shift in how CSR is perceived and practiced, marking its evolution into a central pillar of corporate value creation in the post-pandemic era. To visualize this trend, we include Figure 1: Annual Mean Value in CSR Scores in the Logistics and Distribution Industries, which illustrates

the rising trajectory of CSR engagement and reinforces the empirical motivation for this study.

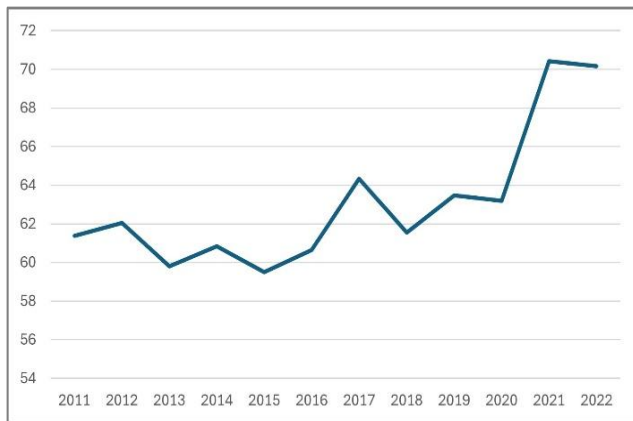


Figure 1: Annual mean value in CSR scores in the Logistics and Distribution Industries

4.2. Regression Analysis

Table 3 presents the regression results examining the effect of Corporate Social Responsibility (CSR) engagement on firm financial performance for companies in the logistics and distribution industry. The key explanatory variable, CSRD, is defined as a binary indicator that takes the value of 1 if the firm is classified by KEJI as belonging to the top-performing CSR group, and 0 otherwise. Accordingly, a significantly positive coefficient on CSRD would support the hypothesis of this study that firms actively engaging in CSR activities tend to exhibit higher Return on Assets (ROA) than those that do not. The regression analysis shows that the coefficient of CSRD is 0.049 with a t-value of 9.310, and it is statistically significant at the 1% level. This indicates that, on average, firms identified by KEJI as top CSR performers achieve approximately 4.9 percentage points higher ROA compared to other firms. The findings indicate that CSR engagement is associated with statistically significant improvements in financial outcomes, supporting its role as an operationally relevant strategy. This result is especially relevant in the logistics and service sectors, where firms frequently interact with consumers and corporate image is directly linked to profitability. In such industries, CSR engagement can be more readily translated into financial outcomes through enhanced stakeholder trust, greater brand loyalty, and improved operational efficiency. Therefore, the findings offer empirical support for the theoretical framework of stakeholder theory and the resource-based view, and they strongly reinforce the hypothesis proposed by this study.

Table 3: CSR and Business Performance in the Logistics and Distribution Industries

Dependent Variable: ROA		
Variables	coefficient	t-value
Intercept	-0.321	-11.200***
CSRD	0.049	9.310***
SIZE	0.018	12.120***
LEV	-0.132	-10.390***
GROWTH	0.001	6.740***
RND	-1.189	-2.240**
F-value	72.69***	
Adjusted R ²	0.238	
Sample Size	1,145	

Note: ***, **, and * denote statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Variable definitions: refer to Table 1.

Table 4 presents the regression results based on a sample of 368 firm-year observations from companies classified as top CSR performers by KEJI, investigating the relationship between the level of CSR engagement and firm financial performance. The main independent variable, CSRS, refers to the continuous CSR score assigned by KEJI, based on a 100-point scale. A significantly positive coefficient on CSRS would support the notion that higher levels of CSR activity are associated with better ROA performance. The analysis reveals that the coefficient of CSRS is 0.048 with a t-value of 1.69, indicating a statistically significant positive relationship at the 10% level. This suggests that firms with higher CSR scores tend to demonstrate greater ROA, implying that the qualitative level of CSR engagement may contribute positively to financial performance. While the earlier CSRD model focused on the binary classification of CSR implementation, the CSRS model examines the quantitative degree of CSR activity, showing that the intensity and systematic nature of CSR practices are linked to firm performance. These results reinforce the importance of not only whether firms engage in CSR but also how extensively and strategically those activities are executed.

Table 4: CSR score and Business Performance in the Logistics and Distribution Industries

Dependent Variable: ROA		
Variables	coefficient	t-value
Intercept	-0.208	-1.78*
CSRS	0.048	1.69*
SIZE	0.003	2.43**
LEV	-0.062	-5.45***
GROWTH	0.001	5.27***
RND	0.554	0.66
F-value	13.72***	
Adjusted R ²	0.147	
Sample Size	368	

Note: ***, **, and * denote statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Variable definitions: refer to Table 1.

To further enhance the analysis presented in Table 4, an additional regression was conducted to examine the effects of each subcomponent of the KEJI CSR index. As previously noted, the KEJI CSR score is composed of six categories (CSR1–CSR6), reflecting different dimensions of corporate social responsibility, including soundness, fairness, social contribution, customer protection, environmental protection, and employee satisfaction. In this supplementary analysis, each of the six subcategory scores was included as an independent variable in the regression model to assess their individual associations with financial performance.

The results reveal that among the six components, CSR4 (Customer Protection) and CSR5 (Environmental Protection) exhibit statistically significant relationships with ROA. Specifically, the coefficient for CSR4 was -0.002 with a t -value of -1.800 , indicating a statistically significant negative effect at the 10% level. This suggests that firms with higher customer protection scores tend to report lower ROA. One possible interpretation is that consumer protection initiatives—such as strengthening after-sales services, improving complaint-handling systems, or ensuring compliance with consumer rights regulations—may result in increased short-term costs related to customer service systems and regulatory compliance, which are less likely to yield immediate improvements in ROA. These activities are instead oriented toward long-term risk mitigation and reputational safeguarding.

In contrast, CSR5 showed a coefficient of 0.005 with a t -value of 3.190 , demonstrating a statistically significant positive effect at the 1% level. This result implies that greater engagement in environmental protection is associated with higher ROA. Environmental CSR activities—such as reducing emissions, improving energy efficiency, or adopting sustainable resource management practices—may not only improve a firm's cost structure but also enhance brand value and attract environmentally conscious consumers and investors. In this regard, the result highlights the increasingly strategic nature of environmental initiatives, especially in the context of heightened ESG awareness in both consumer markets and capital markets.

Taken together, these findings indicate that the financial implications of CSR vary by category. While some CSR dimensions, like environmental protection, may enhance financial performance, others, such as customer protection, may involve trade-offs with short-term profitability. Therefore, firms should consider the differentiated economic impacts of each CSR component when developing their CSR strategies. Rather than managing CSR activities solely to maximize overall CSR scores, companies should adopt a selective and strategic approach, taking into account both the nature of each activity and its time-lagged effects on financial outcomes. These insights underscore the

importance of aligning CSR portfolios not only with social expectations but also with the firm's financial and operational goals.

Table 5: CSR Subcategory Scores and Business Performance in the Logistics and Distribution Industries

Dependent Variable: ROA		
Variables	coefficient	t-value
Intercept	0.006	0.220
CSR4	-0.002	-1.800*
SIZE	0.004	2.790***
LEV	-0.064	-5.710***
GROWTH	0.001	6.120***
RND	0.691	0.820
F-value	13.81***	
Adjusted R ²	0.149	
Sample Size	368	

Note: ***, **, and * denote statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Variable definitions: refer to Table 1.

Table 6: CSR Subcategory Scores and Business Performance in the Logistics and Distribution Industries

Dependent Variable: ROA		
Variables	coefficient	t-value
Intercept	-0.027	-0.980
CSR5	0.005	3.190***
SIZE	0.003	2.280**
LEV	-0.067	-5.930***
GROWTH	0.001	5.920***
RND	0.719	0.860
F-value	15.45***	
Adjusted R ²	0.166	
Sample Size	368	

Note: ***, **, and * denote statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Variable definitions: refer to Table 1.

5. Discussion

This study empirically examined the impact of corporate social responsibility (CSR) activities on financial performance (ROA) among listed firms in the logistics and distribution industry. The results reveal that the binary CSR performance variable (CSRD), which identifies whether a firm belongs to the group of CSR-leading companies selected by KEJI, is positively and significantly associated with ROA. This finding supports the hypothesis that firms actively engaged in CSR activities tend to demonstrate better financial performance than those that do not. It highlights that CSR, beyond its ethical or moral justification, can serve as a strategic resource that enhances a firm's long-term competitive advantage and profitability.

Furthermore, the analysis using the CSR score (CSRS) also yielded a statistically significant and positive association with ROA, indicating that the intensity and systematic nature of CSR practices may partially contribute to improved financial outcomes. However, the subcomponent analysis revealed more nuanced results. Environmental protection (CSR5) was found to have a significant positive effect on ROA, suggesting that environmentally oriented CSR efforts can improve operational efficiency, reduce regulatory risks, and enhance reputation—all of which contribute to stronger financial performance in the long run. In contrast, customer protection (CSR4) showed a statistically significant negative effect, implying that certain CSR activities may entail cost burdens or implementation complexity that do not yield immediate financial benefits. These differential impacts emphasize that CSR is not a uniform construct; rather, its financial consequences are contingent upon the specific nature and operational intensity of each activity.

Given the nature of the logistics and distribution industry—characterized by frequent interaction with consumers, high visibility, and dependence on stakeholder trust—the link between CSR and profitability is likely to be more direct and observable. CSR initiatives in such industries can lead to enhanced stakeholder relationships, improved customer retention, and internal performance gains. These findings offer empirical support for both stakeholder theory and the resource-based view, affirming the theoretical proposition that well-aligned and strategically implemented CSR activities contribute to superior firm performance. They also underscore the importance of disaggregating CSR dimensions when designing corporate sustainability portfolios tailored to the strategic environment of each industry.

6. Conclusion

This study investigated the relationship between CSR and financial performance in firms listed in the logistics and distribution industry in Korea from 2011 to 2022. The key findings are as follows:

First, the CSR variable exhibited a significantly positive effect on ROA, indicating that firms recognized as CSR leaders by KEJI tend to achieve higher returns on assets. Second, the CSRS analysis demonstrated a similarly positive relationship, suggesting that higher levels of CSR engagement are associated with better financial performance. Third, in the subcomponent analysis, environmental protection (CSR5) was positively associated with ROA at a high level of significance, whereas customer protection (CSR4) showed a negative relationship, implying

that certain CSR activities may involve trade-offs with short-term profitability or increased cost structures.

Taken together, the results demonstrate that CSR, when aligned with sector-specific operational dynamics and strategically implemented, serves as a value-generating strategy rather than a discretionary cost center—particularly in industries reliant on brand credibility, operational transparency, and consumer trust. This implication is especially pertinent in the logistics and distribution industry, where external stakeholder perceptions directly affect revenue generation, reputational capital, and long-term business viability.

Future research could explore the long-term effects of CSR, compare results across industries, and address potential endogeneity issues to enhance causal inference. Additionally, broader performance metrics—including market valuation, investor response, employment stability, and innovation capacity—could be examined to expand the understanding of CSR's impact. Integrating social (S), environmental (E), and governance (G) dimensions in a unified ESG framework would also be a fruitful direction for empirical studies aiming to capture the full spectrum of CSR's value relevance.

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