Corporate Social Responsibility And Marketing Performance

The Moderating Role Of Advertising Intensity

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The link between corporate social responsibility (CSR) initiatives and company performance has been researched extensively, but the findings have been inconclusive or even conflicting. The link between CSR and marketing performance—one of the dimensions of company performance—has not been investigated so far, however. This study examines the relationship between CSR activities (in particular, corporate community and environmental activities) and marketing performance (measured by market share) and uncovers a positive relationship. The findings of this study demonstrate that the level of advertising intensity positively moderates the relationship between CSR and market share.

INTRODUCTION

The link between corporate social responsibility (CSR) activities and company performance has received considerable research attention (Aguinis and Glavas, 2012; Cheng, Ioannou, and Serafeim, 2014). Several studies have demonstrated that engaging in CSR activities delivers positive benefits, such as providing access to valuable resources, reducing price sensitivity, enhancing marketing efforts, and increasing demand, all of which may lead to better financial performance (Aguinis and Glavas, 2012; Cheng *et al.*, 2014).

Other studies, however, have found negative or contradictory results. Findings have varied widely, from positive to negative, to a U-shaped effect, or even to an inverse U-shaped effect of CSR on financial performance (Cheng *et al.*, 2014). Several explanations have been put forward for these conflicting findings, including measurement errors, theoretical or methodological limitations, and neglect of contingency factors (Aguinis and Glavas, 2012; Cheng *et al.*, 2014; Ullmann, 1985).

The current study attempts to overcome the measurement limitations of earlier studies and to investigate the impact of CSR initiatives on marketing performance—one dimension of company performance that has not been addressed yet. This article puts forward and tests the proposition that

Management Slant

- Companies that engage in corporate social responsibility activities reap the benefit in the form of improved market share.
- Carrying out community and environmental activities leads to better performance in the short and the long term.
- The higher the advertising intensity is, the stronger is the positive impact of the corporate social responsibility activities on market share.

the success of CSR initiatives is influenced by the extent to which customers are made aware of them, as well as of the sponsoring company, via advertising activities.

The argument is that advertising enhances a company's information environment (Nelson, 1974; Servaes and Tamayo, 2013), to the point that the company does not need to advertise its CSR program. By advertising its products and services, a company raises the level of awareness about itself among existing and potential customers. This increased awareness encourages customers to find out more about the company's other activities, including its CSR activities. As customers become more aware of a company's CSR activities, they become better disposed to buy the company's products and services, which, in turn, has a positive effect on marketing performance (Servaes and Tamayo, 2013).

This study investigates the relationship between CSR initiatives that have been found to be valued most—community and environmental activities (Fagerstrøm, Stratton, and Foxall, 2015)—and marketing performance measured by market share. The current study also examines the extent to which this relationship is influenced by advertising intensity, measured by spending level.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT
The next section attempts to define the key terms used in this study and the hypotheses that were tested in order to show how they advance on earlier work.

Corporate Social Responsibility
Although CSR is a widely studied topic, researchers have not agreed yet on a definition (Saeidi, Sofian, Saeidi, Saeidi, et al., 2015). In an influential early study, CSR was defined as "the legal, economic, ethical and discretionary expectations that society has of organizations at a given point in

time" (Carroll, 1979, p. 499). The Commission of the European Communities defined CSR as "the voluntary integration of social and environmental concerns into business operations and into their interaction with stakeholders."[1] A more recent paper defined CSR as "context-specific organizational actions and policies that take into account stakeholders' expectations and the triple bottom line of economic, social, and environmental performance" (Aguinis, 2011, p. 855). This definition has been used by several studies published in leading journals (Aguinis and Glavas, 2012).

In keeping with the definitions above, the current study adopted a conservative approach (Servaes and Tamayo, 2013), defining CSR as "organizational initiatives which take into account the expectations of the primary stakeholders, i.e. customers, as well as the financial performance of the company" (Aguinis and Glavas, 2012; Inoue and Lee, 2011). The current study therefore focused only on CSR activities targeted toward the primary stakeholders (i.e., the customers). The authors further assumed that the customers are end users or consumers (i.e., members of the general public) who are interested in broad societal and environmental matters (Inoue and Lee, 2011). In particular, the current study focused on two types of CSR activities—community and environmental initiatives—because these two activities are considered to be the most compelling types of activities from a customer point of view (Aguinis and Glavas, 2012; Inoue and Lee, 2011; Servaes and Tamayo, 2013).

Company Performance
Company performance is a complex, multidimensional construct that is inherently difficult to operationalize (Carton and Hofer,

[1] Commission of the European Communities. (2002). "Green Book: Promoting a European Framework for Corporate Social Responsibility." Retrieved August 30, 2017, from http://Europa.Eu.Int/Comm/Employment_Social/Soc-Dial/Csr/Greenpaper.Htm

2010; Venkatraman and Ramanujam, 1986). Existing studies on the nexus between CSR and company performance can be classified into two categories, one focused on financial performance (Servaes and Tamayo, 2013), and the other on nonfinancial performance (Luo and Du, 2015). Studies of financial performance have used a wide range of variables, such as Tobin's q, return on assets, and profitability (Aguinis and Glavas, 2012; Inoue and Lee, 2011; Servaes and Tamayo, 2013). Studies of nonfinancial performance have measured the impact of CSR activities on variables such as innovation performance (Luo and Du, 2015).

Company financial performance, in turn, is also a multidimensional construct, and marketing performance is one of the dimensions (Carton and Hofer, 2010). Research has shown that variables, such as growth in sales revenue and profits, capture distinct dimensions of performance, and no one of these measures on its own fully encompasses company financial performance (Venkatraman and Ramanujam, 1987). Studies on the link between CSR and company financial performance typically have used only a single variable to measure financial performance and, therefore, should be compared with caution, because they might capture only partial or inconsistent dimensions of financial performance (Aguinis and Glavas, 2012; Inoue and Lee, 2011; Lai, Chiu, Yang, and Pai, 2010).

Marketing Performance
Researchers have acknowledged widely that there is a dearth of literature on the meaning and measurement of marketing performance (Eusebio, Andreu, and Belbeze, 2006). Previous studies have used a wide range of measures to operationalize the construct "marketing performance" (Frösén, Luoma, Jaakkola, Tikkanen, et al., 2016; Vorhies and Morgan, 2005). These measures can be classified broadly as either "financial" or "nonfinancial" (Rust,

Ambler, Carpenter, Kumar, *et al.* 2004; Stewart, 2009).

A wide range of financial measures have been examined in the literature, including sales revenue, sales growth, share of value added, marketing productivity (sales divided by marketing expenditure), return on sales, and return on investment (Pont and Shaw, 2003). The most commonly used nonfinancial performance measure is market share, because it has been shown to be a very strong predictor of a company's profitability (Clark, 1999).

Market share has been treated in various ways in academic research: as an independent variable (a market-based asset driving company performance), and also as a dependent variable (reflecting the effectiveness of marketing efforts; Rego, Morgan, and Fornell, 2013). Market share is treated in the latter way in the current study—as evidence of the effectiveness of marketing efforts. In this interpretation, market share is considered as an intermediate performance outcome, with financial performance being the ultimate effect.

Studies of market share have used two approaches to operationalization. One approach has been to use unit sales data to calculate market share, whereas another uses sales revenue (Rego *et al.*, 2013). In the current study, the authors opted for the latter approach—focusing on sales revenue—because of nonavailability of unit sales data for the companies in the study sample.

Impact of CSR on Marketing Performance

Although the research findings are mixed (Cheng *et al.*, 2014), a number of studies have reported a positive effect of CSR on company performance (Wang, Chen, Yu, and Hsiao, 2015). A significant proportion of the benefits identified may be considered marketing related (Bhattacharya and Sen, 2010; Maignan, Ferrell, and Ferrell, 2005). Researchers have suggested,

for example, that engaging in CSR activities creates a reputation for the company as honest and reliable and that customers consider the products and services of such companies as more reliable and of better quality (McWilliams and Siegel, 2001). Engaging in CSR activities also enhances the purchase intention of potential customers (Fagerstrøm *et al.*, 2015).

In other words, CSR can be seen as akin to a marketing tool (Chahal and Sharma, 2006; Fagerstrøm *et al.*, 2015), and successful employment of this tool might help companies to build a competitive advantage, leading to the enhancement of their marketing performance (Vorhies and Morgan, 2005). Researchers have hypothesized that engaging in CSR activities might lead to improved marketing performance, as measured by market share, sales value, and customers' and channel partners' satisfaction and retention (Chahal and Sharma, 2006).

In keeping with this interpretation, studies have shown that CSR initiatives indeed can create marketing advantages for companies, which can lead to improved financial performance (Lai *et al.*, 2010). Studies have demonstrated that CSR activities can have a positive effect on brand equity, as well as on brand sales performance (Lai *et al.*, 2010). CSR activities positively affect brand equity among all stakeholders, not just customers (Torres, Bijmolt, Tribó, and Verhoef, 2012). Other recent studies have demonstrated the significantly positive impact of brand equity on financial performance, in both the short and the long term (Mizik, 2014).

Marketplace polls also have shown that customers tend to have a better perception of companies that engage in CSR activities. One study found that "84 percent of Americans say they would be likely to switch brands to one associated with a good cause, if price and quality are similar" (Bhattacharya and Sen, 2004, p. 9).

The study also reported that "79 percent of Americans take corporate citizenship into account when deciding whether to buy a particular company's product, and 36 percent consider corporate citizenship an important factor when making purchasing decisions (Bhattacharya and Sen, 2004, p. 9). Customers even may be willing to pay a higher price for products and services of companies that engage more in CSR activities (Servaes and Tamayo, 2013).

Concluding from these points, the authors hypothesized the following:

> H1: CSR activities will have a positive effect on marketing performance.

Advertising Intensity and CSR

Companies spend large sums of money on promotional activities, providing information about their products and services as well as other company-related information, such as CSR initiatives (Taylor, 2015; Yoon, Kim, and Baek, 2016; Yoon and Oh, 2016). In recent decades, many companies have augmented their product advertising with corporate campaigns focusing on their social and environmental responsibilities and initiatives (Yoon and Oh, 2016). Some companies are using environmental advertising to encourage their customers to consume in an eco-friendly manner (Yoon *et al.*, 2016). Other companies are embedding prosocial and proenvironmental messages in their product advertisements (Bhatnagar and McKay-Nesbitt, 2016; Chahal and Sharma, 2006; Yoon and Oh, 2016) in the hope that they might heighten environmental concern, which might lead to the purchase and consumption of environmentally friendly products (Bhatnagar and McKay-Nesbitt, 2016; Taylor, 2015).

Communicating information about CSR activities is crucial. Provision of such information has been found to affect positively the credibility of the CSR initiatives

TABLE 1 Descriptive Statistics

Variable	Obs	M	Mdn	SD	Min	Max	VIF
Market Share	2,541	22.5230	15.6661	23.3824	0.0803	100	
Total CSR	2,541	–0.0499	0.0000	0.2962	–1.2738	0.9524	1.12
Advertising Intensity	2,541	0.0134	0.0000	0.0264	0.0000	0.1697	1.08
Leverage	2,541	0.1998	0.1920	0.1348	0.0000	1.3947	1.07
R&D Intensity	2,541	0.0480	0.0064	0.1072	0.0000	1.9957	1.08
Economic Growth	2,541	12,850.21	13,381.6	1,576.22	10,472.3	14,685.30	1.00

Note: Obs = observations; M = mean; Mdn = median; Min = minimum; Max = maximum; VIF = variance inflation factor; CSR = corporate social responsibility; R&D = research and development.

themselves as well as that of the sponsoring company (Gruber, Kaliauer, and Schlegelmilch, 2015). This, in turn, can lead to increased purchase intention toward the company's products (Fagerstrøm *et al.*, 2015). The channels of communication, such as television and newspaper coverage, also have been found to be important (Gruber *et al.*, 2015). In a similar vein, one influential study hypothesized a positive relationship between advertising intensity and investment in CSR initiatives (McWilliams and Siegel, 2001).

"Advertising intensity" is defined as the amount of advertising expenditure relative to a company's overall resource base (Huang and Wei, 2012). The more a company spends on advertising, the more information is shared with its customers about its various profit-oriented as well as nonprofit-oriented activities, such as CSR initiatives (Nelson, 1974; Servaes and Tamayo, 2013). Advertising intensity equates to information intensity, reducing the information gap between the company and the customers (Nelson, 1974; Servaes and Tamayo, 2013).

Researchers have suggested that information intensity is one of the significant elements in the CSR–value relationship (Schuler and Cording, 2006). In other words, the extent of value creation from CSR activities hinges on the amount of information about those activities passed on to customers. As supporting evidence for this, studies have found that customers more likely will buy products from companies that engage in CSR activities rather than those that do not. This finding, however, is contingent on the level of awareness about the CSR activities (Bhattacharya and Sen, 2010). This explains why many companies are undertaking corporate advertising campaigns highlighting their CSR initiatives, in addition to their product advertising.

On the basis of the foregoing, the authors hypothesized the following:

H2:   The impact of CSR on marketing performance will be moderated positively by the extent of advertising intensity.

METHODOLOGY OF THE RESEARCH
Sample Size and Sample Period

To investigate the link between CSR and marketing performance, this study focused on nonfinancial U.S.-based companies listed on the S&P 500 Index (See the Appendix). This choice was driven by the fact that accounting reporting standards and procedures vary between financial and nonfinancial companies, which makes them difficult to compare. The sample was made up of 264 companies, which were studied from 2000 to 2009. The choice of study period was influenced by the fact that companies have been engaging in CSR activities increasingly over the past decade.

The 264 companies examined in this study are based in the United States and headquartered in 29 U.S. states. Fifty-eight percent of them are headquartered in Delaware, 4.9 percent are from New York, 3.4 percent from Ohio, and 3 percent from New Jersey. The rest are headquartered in 25 other states, with less than 3 percent representation in each. By industry sector, 54.2 percent are manufacturing companies; 14 percent belong to transportation, communications, electric, gas, and sanitary services; 12.1 percent are in service; 10.2 percent are in retail trade; and 5.7 percent are in mining. The rest (3.8 percent) are divided among construction, wholesale, and nonclassifiable.

Data and Variables

Data were gathered from two databases, both of which have been used in numerous CSR studies published in leading journals (Servaes and Tamayo, 2013; Shahzad and Sharfman, 2017). Data for CSR activities were collected from the KLD database, now known as MSCI RMG Research, after acquisition of the RiskMetrics Group by MSCI. The complete panel included 2,640 observations (264 companies over 10 years), but the number of observations was reduced because of missing values for some years. This research, therefore, worked with a dataset of 2,541 company/year observations (See Table 1).

TABLE 2 Variables for the Study

Types of Variables	Variable	Operationalization	Source
Dependent Variable	Market share	Percentage of sales revenue as compared with total sales revenue in an industry at four-digit SIC level	Compustat
Independent Variable	Corporate social responsibility activities (summation of community and environment score)	CSR strength minus CSR concerns	KLD database
Moderating Variable	Advertising intensity	Advertising expenditure divided by sales	Compustat
Control Variable	Leverage	Total long-term debt divided by total asset	Compustat
	Advertising intensity	Advertising expenditure divided by sales	Compustat
	R&D intensity	R&D expenditure divided by sales	Compustat
	Economic growth	Gross domestic product	Federal Reserve Bank of St. Louis website
Instrumental Variables	Blue and red states (Dummy variable)	1 if the company's headquarters are located in a blue state, and 0 otherwise	www.electoral-vote.com
	Voting	The average margin of victory in the five presidential elections between 1992 and 2008 for the democratic president candidate in the state where company i's headquarters is located.	www.commons.wikimedia.org

Note: CSR = corporate social responsibility; R&D = research and development.

This database tracks CSR activities in the following 13 categories: community, diversity, employment, environment, human rights, product, alcohol, gaming, firearms, military, nuclear, tobacco, and corporate governance. Earlier research showed that all of these CSR dimensions were not equally important to customers (Lee, Seo, and Sharma, 2013; Maignan *et al.*, 2005; Servaes and Tamayo, 2013). Consequently, this study concentrated on two categories that were found to be most significant: community and environment activities (Aguinis and Glavas, 2012; Servaes and Tamayo, 2013).

The KLD database reports on the number of strengths and concerns for each of the categories, but these have changed over time, so it is not possible to compare within a category across the years. In line with a similar study (Servaes and Tamayo, 2013), the number of strengths and the number of concerns for each company year were scaled to form two indices ranging from 0 to 1. The number of strengths and number of concerns for each company year for each of two CSR categories were divided by the maximum possible number of strengths and concerns in each category year. The value for concerns was then subtracted from the value for strengths, which yielded a measure of net CSR involvement in each category, ranging from −1 to 1 for each company year. Finally, the net CSR scores for community and environment were added up, to yield an overall net CSR measure ranging from −2 to 2.

In the second phase of data collection, marketing-performance data and data for control variables were obtained from the Compustat database. Compustat has been used extensively as a source for company performance-related data (Servaes and Tamayo, 2013). In keeping with similar studies (Rego *et al.*, 2013), the authors measured market share as a company's sales revenue divided by total sales in the industry at the four-digit SIC code level. They calculated this measure for every year for every company in the sample. Some control variables were added to the model, because marketing performance is affected by other company activities as well as by the wider economic environment (Servaes and Tamayo, 2013).

Control Variables

The first control variable was advertising intensity, measured as advertising expenditure as a percentage of sales revenue. This was based on the hypothesis (Hypothesis 2) that advertising CSR activities likely affect market share either directly or indirectly,

TABLE 3 Results of Two-Stage Least Squares Regressions

Variable	First Stage	Second Stage
Market Share (t – 1)		0.9865***
		(0.0011)
Adjusted Total Corporate Social Responsibility		4.6833***
		(1.0463)
Advertising Intensity × Total Corporate Social Responsibility		2.8842***
		(0.5993)
Blue State	0.0412*	
	(0.0239)	
Voting	0.0041***	
	(0.0010)	
Advertising Intensity	1.8144***	5.8575***
	(0.2201)	(1.9791)
Leverage	0.0082	–0.1553
	(0.0431)	(0.1935)
R&D Intensity	0.0912*	–0.6120**
	(0.0526)	(0.2927)
Economic Growth	2.79 e^{-06}	–0.00003
	(5.32 e^{-06})	(0.00002)
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
First-stage Cragg & Donald test (*F*-value)	10.02	
Overidentification test (*p*-value)	0.1814	
Adjusted R^2	0.3775	0.9777
F stat.	25.06***	20,406.81***

Note: Robust standard errors clustered at the company level are used to compute t-statistics. Standard errors in parentheses.
*p<0.10; **p<0.05, ***p<0.01.

economic activity in the U.S. economy, measured by gross domestic product, because this might affect company performance positively or negatively. (See Table 2 for a summary of all variables in this study and their operationalization.)

Model Specification

To estimate the relationship between CSR and market share and the possible moderating effect of advertising intensity, this study relied on the following specification:

$$\begin{aligned} Market\ Share_{it} = {}& \beta + \alpha_0\ Market\ Share_{it-1} \\ & + \alpha_1\ Corporate\ Social\ Responsibility_{it} + \\ & \alpha_2\ Advertising\ Intensity_{it} \times \\ & Corporate\ Social\ Responsibility_{it} + \\ & \alpha_2\ Advertising\ Intensity_{it} + \alpha_4\ Leverage_{it} + \\ & \alpha_5\ R\&D\ Intensity_{it} + \alpha_6\ Economic\ Growth_{it} + \\ & Controls\ (Sector,\ Year) + \eta_i + \varepsilon_{it} \end{aligned}$$

where *i* and *t* represent company and year, respectively; controls (sector, year) are a set of dummy variables that capture temporal and sector fixed effects; η_i is the possible company-specific component of the error term; and ε_{it} is the error term.

In line with earlier studies, this research estimated the partial adjustment model (Hanssens, Parsons, and Schultz, 2001). In this model, the dependent variable, market share, was lagged by one period. This model thus allowed the authors to analyze the effect of CSR activities on the market share in both the short and the long term.

Problem of Endogeneity

The CSR literature has predicted an endogenous relationship between CSR and company performance (Cahan, Chen, Chen, and Nguyen, 2015). Endogeneity, in particular omitted variables and reverse causality, could be an issue in the current study. Although the authors included a number of control variables to reduce the impact of omitted variables, the model still could suffer from endogeneity caused by other, unobservable variables and reverse causality (Cahan *et al.*, 2015).

by creating a higher level of awareness among existing and potential consumers, thus stimulating their inclination to purchase (Servaes and Tamayo, 2013).

The second control variable included in the model was for research and development (R&D) activities (Servaes and Tamayo, 2013), because this variable also has been shown to have an impact on company performance (Artz, Norman, Hatfield, and Cardinal, 2010). A higher level of investment in R&D might be expected to result in improved product quality as

well as in the introduction of new products and services to the market, with a resultant increase in sales and market share for the company.

The third control variable included was for capital structure—that is, the amount of long-term debt—because this also has been demonstrated to affect performance (Margaritis and Psillaki, 2010). It is possible that debt leveraging, measured as long-term debt divided by total assets, affects market share (Inoue and Lee, 2011). Finally, this study controlled for the impact of overall

TABLE 4 Correlation Matrix

Variable	1	2	3	4	5	6
1 Market Share	1.0000					
2 Total CSR	.2985	1.0000				
3 Advertising Intensity	.2636	.2383	1.0000			
4 Leverage	−.2414	−.0629	−.0415	1.0000		
5 R&D Intensity	.7435	.1466	−.0230	−.2034	1.0000	
6 Economic Growth	−.0409	.0476	.0052	.0090	−.0429	1.0000

Note: CSR = corporate social responsibility; R&D = research and development.

The authors conducted the Durbin–Wu–Hausman test to detect the possible presence of endogeneity. As the CSR literature has predicted, the results of the Durbin–Wu–Hausman test confirmed the presence of endogeneity ($\chi^2_{\text{Durbin–Wu–Hausman test}}$ = 10.022, p = .0015). The CSR literature further predicted that reverse causality could be an issue in the setting of the current study. The authors hence carried out Granger causality, and the results confirmed the direction of influence from market share to CSR ($F_{\text{Granger test}}$ = 0.49, p = .4821).

Instrumental Variables

To address this endogeneity problem, in keeping with similar studies (Cahan *et al.*, 2015), the authors incorporated two instrumental variables in the model by utilizing a two-stage least-square (2SLS) regression analysis. The first instrumental variable was the ideological leaning of the state in which a company's headquarters were located. Companies that are headquartered in Democratic-leaning states—known as blue states—tend to be more active in CSR activities, compared with companies headquartered in Republican-leaning states, which are known as red states (Di Giuli and Kostovetsky, 2014).

This variable was incorporated in the model as a dummy variable that equaled 1 for a blue state and 0 for a red state. The second instrumental variable incorporated

in the model was voting. This was a continuous variable that measured the average margin of victory or defeat for Democratic candidates in the five presidential elections between 1992 and 2008 in the state where company i had its headquarters.

Instrumental variables must fulfill two criteria in 2SLS regression. First, there should be a high correlation between the instrumental variable and the predicted value of that instrumental variable. Second, there should be no significant correlation between the instrumental variables and the error terms in the dependent variable regression (Cahan *et al.*, 2015). The authors carried out an instrument relevance test (Cragg and Donald, 1993) to confirm the relevance of the instrumental variables (*i.e.*, high correlations between the instrumental variables and adjusted CSR). They conducted an overidentification test (Sargan, 1958) to investigate the exogeneity of the instrumental variables—that is, no significant correlations between the instrumental variables and the error terms in the market share regression (See Table 3).

Descriptive Statistics and Correlation

In line with Hypothesis 1, the correlation matrix shows that market share was positively correlated with total CSR (29.85 percent; See Table 4). As for the control variables, growth in advertising intensity and R&D intensity both were correlated

positively with market share. There were no outliers detected in the data, since there was no value outside the range ($\mu − 3\sigma$, $\mu + 3\sigma$).

To assess the possibility of multicollinearity among the independent variables, the authors calculated variance inflation factors. These ranged from 1.00 to 1.12 (see Table 1), substantially lower than the cutoff of 10 for multiple regression models (Hair, Anderson, Tatham, and Black, 1998), which indicates that multicollinearity was not a problem.

RESULTS

In the first stage of 2SLS, CSR was used as the dependent variable, and blue state and voting were used as the instrumental variables. In the second stage of 2SLS, market share was used as the dependent variable, and the predicted value of total CSR (adjusted CSR) was used in place of total CSR score (Cahan *et al.*, 2015).

As can been seen in the first-stage regression, the two instrumental variables, blue state and voting, were positive and statistically significant at the 10 percent and 1 percent levels, respectively (See Table 3). The instrument relevance test (Cragg and Donald, 1993) showed that the null hypothesis could be rejected (F = 10.02)—that is, the instruments of the study were not weak. This confirms the relevance of the instrumental variables.

The overidentification test (Sargan, 1958) demonstrated that the two instrumental variables did not violate the overidentifying restriction (p = .1814).

In the second stage of the regression, market share was the dependent variable, and the predicted value for CSR was used as the independent variable. The analysis demonstrates that the coefficient estimate of the predicted value of CSR was positive and significant at the 1 percent level (α_1 = 4.6833, p = .000). The results, therefore, support Hypothesis 1, that companies engaging in CSR activities do reap the benefit of these activities in the form of higher market share.

The results further show that the interaction between advertising intensity and a company's CSR activities was positive and significant (α_2 = 2.8842, p = .000), indicating that the relationship between CSR and market share was stronger for companies with a higher level of advertising expenditure. The analysis shows, therefore, that the more companies spend on advertising, the more positive is the impact of CSR on market share.

The inclusion of the lagged market share term in the model allowed the analysis of the long-term effects of CSR. The significant coefficient of the lagged dependent variable (α_0 = 0.9865, p = .000) indicates that CSR was a significant determinant of market share in the long term, in addition to the short-term effect.

As for the control variables, companies that had greater advertising intensity (α_3 = 5.8575, p = .003) also had a higher market share. In contrast, however, the analysis also showed that companies that invested less in R&D (α_5 = 0.6120, p = .037) had a better market share.

Finally, the adjusted R^2 value in the second stage was very high (97.77 percent), which indicates that CSR activities and advertising intensity played a significant role in explaining market share. It is important, however, to mention that some of the explanatory power was due to the lagged dependent variable, because there was considerable inertia in market share. This indicates that the effect of CSR activities is long lasting.

CONCLUSIONS AND MANAGEMENT IMPLICATIONS

This article fills an important gap in the CSR literature by providing evidence of a positive link between CSR activities and marketing performance, as measured by market share. The findings of this research show that companies engaging in community and environmental CSR activities reap the benefit of their investment in the form of improved market share. This study shows that customers viewed CSR activities positively and rewarded such activities by buying more products and services from these companies.

The findings also show that the relationship between CSR activities and market share was moderated positively by the extent of advertising intensity, as hypothesized. In other words, the greater the advertising expenditure was, the stronger was the relationship between CSR activities and marketing performance. Advertising lessens the information gap between companies and their customers (McWilliams and Siegel, 2001), making customers aware not only of the companies' products and services but also of other initiatives, such as CSR. These results are consistent with those of previous research that demonstrated that the relationship between company value, measured by Tobin's q, and CSR activities was moderated by the level of customers' awareness of the CSR initiatives (Servaes and Tamayo, 2013).

The results indicate, furthermore, that companies do not have to advertise their environmental and community CSR activities. Even if they just advertise their products, the advertisements will create awareness about the company itself, which will encourage consumers to seek out more information about the company's other activities, including CSR. As the customers become aware of the company's CSR initiatives, they tend to buy more of its products, thereby positively influencing marketing performance.   **JAR**

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REFERENCES

AGUINIS, H. "Organizational Responsibility: Doing Good and Doing Well." In APA *Handbook of Industrial and Organizational Psychology*, vol. 3, S. Zedeck, ed. Washington, DC: American Psychological Association, 2001.

AGUINIS, H., and A. GLAVAS. "What We Know and Don't Know about Corporate Social Responsibility: A Review and Research Agenda." *Journal of Management* 38, 4 (2012): 932–968.

Artz, K. W., P. M. Norman, D. E. Hatfield, and L. B. Cardinal. "A Longitudinal Study of the Impact of R&D, Patents, and Product Innovation on Firm Performance." *Journal of Product Innovation Management* 27, 5 (2010): 725–740.

Bhatnagar, N., and J. McKay-Nesbitt. "Pro-Environment Advertising Messages: The Role of Regulatory Focus." *International Journal of Advertising* 35, 1 (2016): 4–22.

Bhattacharya, C. B., and S. Sen. "Doing Better at Doing Good: When, Why, and How Consumers Respond to Corporate Social Initiatives." *California Management Review* 47, 1 (2004): 9–24.

Bhattacharya, C. B., and S. Sen. "Maximizing Business Returns to Corporate Social Responsibility (CSR): The Role of CSR Communication." *International Journal of Management Reviews* 12, 1 (2010): 8–19.

Cahan, S. F., C. Chen, L. Chen, and N. H. Nguyen. "Corporate Social Responsibility and Media Coverage." *Journal of Banking & Finance* 59 (2015): 409–422.

Carroll, A. B. "A Three-Dimensional Conceptual Model of Corporate Performance." *Academy of Management Review* 4, 4 (1979): 497–505.

Carton, R. B., and C. W. Hofer. "Organizational Financial Performance: Identifying and Testing Multiple Dimensions." *Academy of Entrepreneurship Journal* 16, 1 (2010): 1–22.

Chahal, H., and R. Sharma. "Implications of Corporate Social Responsibility on Marketing Performance: A Conceptual Framework." *Journal of Services Research* 6, 1 (2006): 205–216.

Cheng, B., I. Ioannou, and G. Serafeim. "Corporate Social Responsibility and Access to Finance." *Strategic Management Journal* 35, 1 (2014): 1–23.

Clark, B. H. "Marketing Performance Measures: History and Interrelationships." *Journal of Marketing Management* 15, 8 (1999): 711–732.

Cragg, J. G., and S. G. Donald. "Testing Identifiability and Specification in Instrumental Variable Models." *Econometric Theory* 9, 2 (1993): 222–240.

Di Giuli, A., and L. Kostovetsky. "Are Red or Blue Companies More Likely to Go Green? Politics and Corporate Social Responsibility." *Journal of Financial Economics* 111, 1 (2014): 158–180.

Eusebio, R., J. L. Andreu, and M. P. Belbeze. "Measures of Marketing Performance: A Comparative Study from Spain." *International Journal of Contemporary Hospitality Management* 18, 2–3 (2006): 145–155.

Fagerstrøm, A., J. P. Stratton, and G. R. Foxall. "The Impact of Corporate Social Responsibility Activities on the Consumer Purchasing Situation." *Journal of Organizational Behavior Management* 35, 3–4 (2015): 184–205.

Frösén, J., J. Luoma, M. Jaakkola, H. Tikkanen, et al. "What Counts versus What Can Be Counted: The Complex Interplay of Market Orientation and Marketing Performance Measurement." *Journal of Marketing* 80, 3 (2016): 60–78.

Gruber, V., M. Kaliauer, and B. B. Schlegelmilch. "Improving the Effectiveness and Credibility of Corporate Social Responsibility Messaging: An Austrian Model Identifies Influential CSR Content and Communication Channels." *Journal of Advertising Research* (2015, December): Digital First publication.

Hair, J. F., R. E. Anderson, R. L. Tatham, and W. C. Black. *Multivariate Data Analysis*. Upper Saddle River, NJ: Pearson, 1998.

Hanssens, D., L. Parson, and R. Schultz. *Market Response Models. International Series in Quantitative Marketing*. Dordrecht, the Netherlands: Kluwer Academic, 2001.

Huang, Y., and S. X. Wei. "Advertising Intensity, Investor Recognition, and Implied Cost of Capital." *Review of Quantitative Finance and Accounting* 38, 3 (2012): 275–298.

Inoue, Y., and S. Lee. "Effects of Different Dimensions of Corporate Social Responsibility on Corporate Financial Performance in Tourism-Related Industries." *Tourism Management* 32, 4 (2011): 790–804.

Lai, C.-S., C.-J. Chiu, C.-F. Yang, and D.-C. Pai. "The Effects of Corporate Social Responsibility on Brand Performance: The Mediating Effect of Industrial Brand Equity and Corporate Reputation." *Journal of Business Ethics* 95, 3 (2010): 457–469.

Lee, S., K. Seo, and A. Sharma. "Corporate Social Responsibility and Firm Performance in the Airline Industry: The Moderating Role of Oil Prices." *Tourism Management* 38 (2013): 20–30.

Luo, X., and S. Du. "Exploring the Relationship between Corporate Social Responsibility and Firm Innovation." *Marketing Letters* 26, 4 (2015): 703–714.

Maignan, I., O. Ferrell, and L. Ferrell. "A Stakeholder Model for Implementing Social Responsibility in Marketing." *European Journal of Marketing* 39, 9–10 (2005): 956–977.

Margaritis, D., and M. Psillaki. "Capital Structure, Equity Ownership and Firm Performance." *Journal of Banking & Finance* 34, 3 (2010): 621–632.

McWilliams, A., and D. Siegel. "Corporate Social Responsibility: A Theory of the Firm Perspective." *Academy of Management Review* 26, 1 (2001): 117–127.

Mizik, N. "Assessing the Total Financial Performance Impact of Brand Equity with Limited Time-Series Data." *Journal of Marketing Research* 51, 6 (2014): 691–706.

Nelson, P. "Advertising as Information." *Journal of Political Economy* 82, 4 (1974): 729–754.

Pont, M., and R. Shaw. "Measuring Marketing Performance: A Critique of Empirical Literature." Paper presented at the Australia and New Zealand Marketing Academy Conference, Adelaide, Australia, December 1–3, 2003.

Rego, L. L., N. A. Morgan, and C. Fornell. "Reexamining the Market Share–Customer Satisfaction Relationship." *Journal of Marketing* 77, 5 (2013): 1–20.

Rust, R. T., T. Ambler, G. S. Carpenter, V. Kumar, et al. "Measuring Marketing Productivity: Current Knowledge and Future Directions." *Journal of Marketing* 68, 4 (2004): 76–89.

Saeidi, S. P., S. Sofian, P. Saeidi, S. P. Saeidi, et al. "How Does Corporate Social Responsibility Contribute to Firm Financial Performance? The Mediating Role of Competitive Advantage, Reputation, and Customer Satisfaction." *Journal of Business Research* 68, 2 (2015): 341–350.

Sargan, J. D. "The Estimation of Economic Relationships Using Instrumental Variables." *Econometrica: Journal of the Econometric Society* 26, 3 (1958): 393–415.

Schuler, D. A., and M. Cording. "A Corporate Social Performance–Corporate Financial Performance Behavioral Model for Consumers." *Academy of Management Review* 31, 3 (2006): 540–558.

Servaes, H., and A. Tamayo. "The Impact of Corporate Social Responsibility on Firm Value: The Role of Customer Awareness." *Management Science* 59, 5 (2013): 1045–1061.

Shahzad, A. M., and M. P. Sharfman. "Corporate Social Performance and Financial Performance: Sample-Selection Issues." *Business & Society* 56, 6 (2017): 898–918.

Stewart, D. W. "Marketing Accountability: Linking Marketing Actions to Financial Results." *Journal of Business Research* 62, 6 (2009): 636–643.

Taylor, C. R. "A Call for More Research on 'Green'or Environmental Advertising." *International Journal of Advertising* 34, 4 (2015): 573–575.

Torres, A., T. H. Bijmolt, J. A. Tribó, and P. Verhoef. "Generating Global Brand Equity through Corporate Social Responsibility to Key Stakeholders." *International Journal of Research in Marketing* 29, 1 (2012): 13–24.

Ullmann, A. A. "Data in Search of a Theory: A Critical Examination of the Relationships among Social Performance, Social Disclosure, and Economic Performance of US Firms." *Academy of Management Review* 10, 3 (1985): 540–557.

Venkatraman, N., and V. Ramanujam. "Measurement of Business Performance in Strategy Research: A Comparison of Approaches." *Academy of Management Review* 11, 4 (1986): 801–814.

Venkatraman, N., and V. Ramanujam. "Measurement of Business Economic Performance: An Examination of Method Convergence." *Journal of Management* 13, 1 (1987): 109–122.

Vorhies, D. W., and N. A. Morgan. "Benchmarking Marketing Capabilities for Sustainable Competitive Advantage." *Journal of Marketing* 69, 1 (2005): 80–94.

Wang, D. H.-M., P.-H. Chen, T. H.-K. Yu, and C.-Y. Hsiao. "The Effects of Corporate Social Responsibility on Brand Equity and Firm Performance." *Journal of Business Research* 68, 11 (2015): 2232–2236.

Yoon, S., and S. Oh. "Introduction to the Special Issue on Social and Environmental Issues in Advertising." *International Journal of Advertising* 35, 1 (2016): 1–3.

Yoon, S., Y. Kim, and T. H. Baek. "Effort Investment in Persuasiveness: A Comparative Study of Environmental Advertising in the United States and Korea." *International Journal of Advertising* 35, 1 (2016): 93–105.

APPENDIX

Companies Used in the Sample (Ticker Symbol)

Ticker Symbol						
A	BIIB	DE	HAS	LPX	PCAR	SYK
AA	BLL	DGX	HD	LUV	PCG	SYMC
AAPL	BMS	DHR	HES	LXK	PCL	SYY
ABC	BMY	DIS	HOG	MAR	PEG	T
ABT	BRCM	DOV	HON	MAS	PEP	TAP
ADBE	BSX	DOW	HOT	MAT	PFE	TE
ADI	CA	DRI	HPQ	MCD	PG	TER
ADM	CAG	DTE	HRB	MCK	PH	TGT
ADP	CAH	DUK	HSP	MCO	PHM	THC
ADSK	CAR	DVN	HSY	MDP	PKI	TIF
AEE	CAT	EBAY	IBM	MKC	PLL	TJX
AEP	CCE	ECL	IFF	MMM	PMCS	TMO
AES	CCL	ED	INTC	MO	PNW	TWX
AGN	CIEN	EFX	INTU	MON	PPG	TXN
ALTR	CL	EIX	IP	MRK	PPL	TXT
AMAT	CLX	EMC	IPG	MRO	PX	UIS
AMCC	CMCSA	EMN	IR	MSFT	QCOM	UNP
AMD	CMI	EMR	ITT	MU	QLGC	UPS
AMGN	CMS	EOG	ITW	MXIM	R	UTX
AN	CNP	ESRX	JBL	MYL	RAI	VFC
APA	COH	ETR	JCP	NAV	RDC	VLO
APC	COL	EXC	JDSU	NCR	RHI	VMC
APD	COP	F	JNJ	NEM	ROK	VZ
APOL	COST	FCX	JWN	NI	RRD	WAT
ASH	CPB	FDX	K	NKE	RTN	WHR
ATI	CSC	FE	KBH	NOC	SANM	WM
AVP	CSCO	FISV	KLAC	NSC	SBUX	WMB
AVY	CSX	FLR	KMB	NTAP	SEE	WMT
AZO	CTAS	GD	KO	NUE	SHW	WY
BA	CTB	GE	KR	NVDA	SIAL	X
BAX	CTL	GILD	KSS	NWL	SLB	XEL
BBBY	CTXS	GIS	LEG	NYT	SNA	XLNX
BBY	CVG	GLW	LH	ODP	SO	XOM
BC	CVS	GPC	LLL	OMC	SPLS	XRX
BCR	CVX	GPS	LLTC	ORCL	SRE	YHOO
BDX	D	GT	LLY	OXY	STJ	YUM
BHI	DD	GWW	LMT	PAYX	SVU	
BIG	DDS	HAL	LOW	PBI	SWK	