Examining the causal relationships between corporate social responsibility and financial performance

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ABSTRACT

This paper revisits the issue of whether corporate social responsibility (CSR) possesses a relationship with financial performance by working from previous databases. Also, an effort is made to ascertain the existence of causality. This study finds causality to exist, but in contrast to most earlier studies, the relationship is negative. Additionally, this study points out that monies diverted to CSR activities could have been expended on more direct contributions to overall financial performance, thus the so called "opportunity cost" of moving CSR expenditures to expenditures that improve financial performance remains unaccounted for. If nothing else, the negative causal relationship found in this study may be understated.

Keywords: Corporate social responsibility, financial performance, profitability.
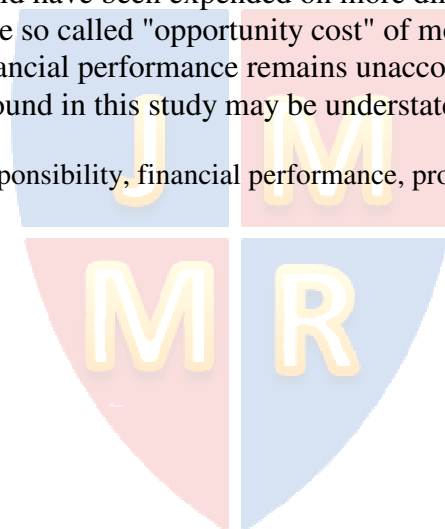
Introduction

The political winds of change in Washington D.C. suggest a new social contract is being drafted. This contract with America is ominous for many in the Academy's Social Interest in Management (SIM) division. It is a contract that often appears to favor short-term economic gains and less regulation at the expense of numerous stakeholders sensitive to the various social concerns.

This emerging and updated contract with America reflects a fundamental belief that government is "the" problem and business is "the" solution. Part of the assumption with this new contract is that contemporary economic health makes possible eventual social contributions. As a result, some sacrifice is needed on the part of traditional constituents dependent on social largesse. This is clearly not the first time in this century that a society has embraced an "ends justify the means" argument.

Interestingly enough, the SIM area has been witness to considerable research regarding the relationship of economic performance and social performance in corporate America. Over the past decade, a number of empirical studies have examined whether a relationship exists between corporate financial performance and corporate social orientation. While these empirical studies have produced mixed results, the general view in the SIM area is that there is a causal relationship. However, there is no empirical research to date which explicitly tests for such a causal link. By working from previous databases, this study proposes to test for a causal relationship between financial performance and social orientation.

LITERATURE REVIEW

For the past decade, empirical research into the relationship between the construct of corporate social responsibility (CSR) and financial performance has produced sharply contrasting results. Most of these results are largely clustered around two outcomes. First, there is research that explicitly or implicitly suggests that there is a positive relationship between CSR and financial performance (Mikolajek-Gocejna, 2016; Cochran & Wood, 1984; Spencer & Taylor, 1987; Davidson & Worrell, 1988; McGuire, Sundgren, & Schneeweis, 1988; Graves & Waddock, 1994). Second, there is some highly focused research which argues that there is no relationship between CSR and financial performance especially in the case of developing economies (Wang, Dou & Jia, 2016; Aupperle, Carroll, & Hatfield, 1985; Aupperle & Simmons, 1988; Aupperle & Pham, 1989). Practically all of the aforementioned studies do not account for the fact that monies diverted to CSR activities could have been expended on more direct contributions to overall financial performance through updating plant and equipment, increasing expenditures in R&D, improving customer service or even increasing salaries to attract more

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competent employees. There is clearly an "opportunity cost" to diverting funds that might directly impact profitability to expending funds on social responsibility causes which may have little or no impact on financial performance.

While none of the above studies tested for causality, the effort by O'Bannon and Preston (1993) examines this linkage. However, their most important finding is that firm performance appeared to be the independent variable when influencing CSR, the dependent variable.

Much of the reason for contrasting CSR results pertains to differing theoretical assumptions and varying methodological procedures, from the aforementioned studies. Ullman (1985) notes that the difficulty in finding meaningful relationships is tied to the ineffective conceptualization of theory, and inadequate operationalization of key terms, including financial indicators of economic success. The problem of definition is succinctly observed by Sethi (1973) who states : "...It might be argued that we cannot measure what we cannot define."

Both CSR and corporate social performance (CSP) are constructs upon which researchers have relied in recent years. The CSP construct is newer and has taken on increasing importance due to the work of Carroll (1979), Wartick and Cochran (1985), and Wood (1991, a and b). The intent of the CSP construct is to focus on the explicit firm behaviors that say something about an organization's social performance. The CSR term remains more inclusive by potentially looking at both organizational social values and explicit organizational behaviors. Still, both CSR and CSP are overlapping constructs that are difficult to differentiate and operationalize. The ambiguity encompassing these constructs complicates the process of developing useful measures and instruments, and of using statistical procedures to produce valid and reliable results.

Numerous means have been employed in assessing an organization's social orientation, but little effort has gone into integrating the differing procedures. The intent of this paper is not to dissect the various CSR studies or to assess their strengths and weaknesses. Instead, the concern is to extend the 1985 empirical work of Aupperle et al. (ACH) by using more refined statistical procedures. While the CSR survey research that commences from the ACH study differs sharply from Mikolajek-Gocejna, (2016), McGuire et al. (1988), Wokutch and Spencer (1988), and to a degree Graves and Waddock (1994), this may result not so much from conceptualization differences, but from the statistical procedures employed.

It is reasonable to believe that differences in how researchers conceptualize CSR/CSP play a major role in facilitating contrasting empirical results. However, there is the possibility that something else is consequential. Perhaps the differing portraits regarding the CSR/CSP relationship with organizational financial performance is a function of differing and sometimes inadequate statistical procedures. While most of the CSR/CSP differences between studies have been attributed to differences in theory, construct development, measures, and non-statistical methods, an overlooked area appears to be the statistical procedures used to analyze the data. As a result, this study revisits the raw CSR databases directly connected to ACH (1985). The intent is to reanalyze the CSR and financial performance relationships in order to see if, in fact, a positive relationship exists, and whether it is causal.

More recent studies of CSR and corporate financial performance cast further doubt on a causal relationship. For example, Tanggamani et. al. (2018) point out "the virtuosity of the cycle" but offer scant proof either forwards or backwards. Aras et.al. (2008) claimed that "corporate social responsibility is important and fundamental to the sustainable operations of corporations." The authors aimed "to investigate the relationship between corporate social

responsibility and firm financial performance." Despite their efforts to discover a correlation, the conclusion nevertheless is, "The authors were not able to find any significant relationship between corporate social responsibility and financial performance/profitability." The researcher Magdalena Mikolajek-Gocejna, in her study on "The relationship between corporate social responsibility and corporate financial performance – evidence from empirical studies" (2016) found more studies claiming a "positive correlation" between CSR and corporate financial performance than a "mixed" or "negative" correlation, questions still remain. Mohammed Nizamudddin posts several of these questions in the form of his findings. He concludes, "The findings show that no CSR measurement approach is without limitations. In addition, most of the approaches face two problems, namely, researcher's subjectivity and biasness in selection, which may affect the nature of CSR-CFP relationship results" (2018).

The Aupperle, Carroll & Hatfield Methodology

Aupperle, Carroll, and Hatfield (1985), developed a survey instrument that has subsequently been used by Aupperle and Simmons (1989). This instrument is based upon the four-part CSR construct suggested by Carroll (1979), and possesses four unique and independent components: economic, legal, ethical, and discretionary (philanthropy). Carroll implicitly suggests that the relative weighting of their components was scaled to be 4:3:2:1. While his economic component was considered dominant, it was of relatively less weight than the combination of the other three components which comprise a more direct concern for society (CS).

In order to minimize respondent bias, ACH (1985) developed and employed a forced-choice questionnaire based upon Carroll's (1979) components. The value-laden nature of social responsibility research required using an instrument capable of minimizing the social desirability bias of the responses. Reliability was built into the questionnaire by representing each component as a unique statement within each four-part forced-choice set. In essence, each four-part forced-choice set was replicated 20 times in the ACH questionnaire. The same basic four questions were thus asked repeatedly, but in a slightly different manner, to obtain high reliability. The intent was to capture the strength of preference. Unlike Likert-type instruments, a forced-choice response is likely to be more honest since there is "no escape". This is especially true if all respondent options are "legitimate", and are comparable across various individual subjects.

The questionnaire was designed to have the respondent allocate up to, but not more than, 10 points to each of the 20 sets of four CSR statements. The points were allocated on the basis of the relative attractiveness of each statement. By allocating points to each four statement set, a respondent was revealing his or her preference for each of the CSR components. The CSR statements used in the instrument were selected from previous studies which had examined a firm's social orientation. More on the instrument can be found in Appendix A.

To obtain empirical results on the relationship of CSR to financial performance, ACH chose to correlate the CS score of each responding firm with its five year and one year return on assets (ROA). No significant relationship between profitability and CSR was found. When the short-term and long-term ROAs were adjusted for risk, no relationship was observed. The best result was with CSR and the risk-adjusted, short-term ROA, which had a correlation of 13 percent and a p value of eight percent. However, a modest but statistically significant relationship between corporate risk and CSR was revealed. The relationship was negative (r =

-.17, p = .02). McGuire et. al. (1988) also obtained a similar result between CSR and risk.

The questionnaire used by ACH (1985), was mailed to the 818 CEOs listed in the 1981 Annual Directory of Forbes and through three mailings produced a usable response rate of thirty percent. After a number of factor analyses, a three-factor analysis was able to confirm the existence of four unique CSR components where each component possessed a weight or value close to what Carroll (1979) implicitly proposed.   Each of the four components were found to reveal high reliability, with Cronbach alphas ranging from .84 to .90. The components were statistically significant and, for the three non-economic components, relatively independent of one another (where the p values were < .05 and the r values ≤ .25). The recent results from Smith & Blackburn's study (1988) also support these findings.

Studies by Aupperle and Pham (1989) and Aupperle and Simmons (1989) follow up on the research by ACH (1985). The first of these chose to use the CSR data from ACH in conjunction with five-year financial data that began the year after the initial survey. This was in contrast to ACH where five-year data prior to the survey was used. An additional change introduced by Aupperle and Pham was the inclusion of several additional measures of long-term financial performance: return on equity (ROE), sales growth, earnings per share (EPS) growth, stock price growth, total return to the investor, beta, and Value Line's total risk measure - the safety rating. The empirical results were similar to what ACH had observed earlier. While a number of statistically significant relationships were found, none of the r values were above 5 percent. As a result, Aupperle and Pham concluded that their findings did not support the premise that a meaningful relationship between CSR and financial performance existed.

In the Aupperle and Simmons (1989) study, a new survey of corporate CEOs was undertaken by using the instrument deployed by ACH (1985). In contrast to the 1985 study, the 1989 study produced fewer responses (189 instead of 240) and a somewhat lower response rate (24% versus 30%). In addition, Aupperle and Simmons used a slightly different mix of financial measures due in part to the data changes reflected in Forbes. The measures used in the 2989 study include the long-term measures of return on equity, sales growth, earnings per share, stock price growth, total return to the investor, beta, and safety. Short-term measures included the return on equity and net profit margin.

When examining the relationship between CSR and financial performances, the researchers found even fewer significant relationships than did Aupperle and Pham (1989). While few of these relationships displayed meaningful correlations, one did stand out. The short-term net profit margin was found to be significant and to possess a low-moderate correlation with CSR. However, the researchers concluded that there was little evidence of a positive relationship between CSR and various long-term indices of financial performance.

With these various studies in place, it is now possible to test for causality as well as to use better statistical procedures when looking at the relationship of CSR to various measures which reflect upon organizational success.

METHOD

The measures used are derived from the work of ACH. There are three success variables: Long Term Beta, Long Term Safety, and Long Term ROA. These are the average of Beta, Safety, and ROA over three five-year time periods: 1976-1980, 1982-1986, and 1989-1993. Beta is the stock market beta, obtained from Forbes. Safety is obtained from Value Line, and is their proprietary measure of the safety of investing in the firm. ROA is obtained from Forbes.

The variables 1981 and 1988 % Allocation to Corporate Social Responsibility measure the percentage allocation of points to the discretionary, ethical, and social choices of the ACH questionnaire in 1981 and 1988 respectively. Since it was possible for the respondents to allocate different amounts of points to these three areas and to the economic area, it was necessary to make the measures more comparable by eliminating the effects of differences in point allocation. The variables add the points allocated to the discretionary, ethical, and social choices, and divide that number by the total number of points added to discretionary, ethical, social, and economic choices.

RESULTS

Table 1 reports variable means, standard deviations, and inter-correlations. There is highly significant correlation among success variables for a given time period, and also across time periods. The two variables measuring percentage allocation to CSR are not significantly correlated with each other, nor with most of the success variables.

The results of a series of simple regressions are reported in Table 2. There are significant (or close to accepted levels) relationships for each of the time periods. Success variables at one period are negatively related to the subsequent CSR measure, which is significantly and negatively related to subsequent success variables, for all time periods. Because of data matching problems, the N for each set of equations varies.

Table 3 reports the results of three canonical correlations between aggregated success measures and the CSR measures. The success measure for 1976- 1980 is positively and significantly correlated (.867) with the success measure for 1982-1986. The 1981 CSR measure is negatively and significantly correlated (-.411) with the 1982-1986 success measure, with the effect of the success measure for 1976-1980 being controlled. The N for this test is 32. The 1981 CSR measure is positively but insignificantly correlated (.159) with the 1988 CSR measure. The 1982-1986 success measure is negatively and insignificantly correlated (-.327) with the 1988 CSR measure with the effect of the 1981 CSR measure being controlled. The N of this test is 22. The success measure for 1982-1986 is positively and significantly correlated (.722) with the success measure for 1989-1993. The 1988 CSR measure is positively but insignificantly correlated .055 with the 1989-1993 success measure, with the effect of the success measure for 1982-1986 being controlled. The N for this test is 23.

CONCLUSIONS

The results indicate that organizational success is negatively and significantly related to CSR, and that CSR is negatively and significantly related to success. The direction of causality is circular. For these long term data, changes in CSR occur in a dynamic fashion: CSR decreases with increased success, which quickly leads to further decreases in CSR. There is virtually no relationship between the measure of CSR in 1981 and the measure of CSR in 1988, even though the same instrument was administered to the same companies, often the same CEO.

The different measures of success, drawn from three different sources, are much more stable over time, particularly when used as an aggregate measure. Even though the success measures are highly correlated over time, the measure of CSR adds to the explanation of the difference in success. Because of the need to obtain success measures from the same company over a number of very different time periods, the N for the canonical correlation tests was limited. For instance,

the databases associated with ACH (1985), Aupperle and Simmons (1989), and Aupperle and Pham (1989), as well as the new one for this study (representing the years 1989-1993), were not always consistent in the use of financial variables. The two most recent financial databases do not include ROA, since Forbes no longer uses a five-year ROA. As a result, the N shifts at various stages when testing for causality. However, despite the existence of some low Ns, it is surprising to find so many robust results as well as many "near" significant results.

  The two most significant findings of this study have profound implications. First, causality is found to exist in the CSR-success relationship. This is the first study to provide reasonably strong empirical results to support such a finding. However, the causality is multi-directional; CSR affects success and success affects CSR. Second, the relationship between CSR and success is nearly always negative especially in light of the fact that companies that expend funds on CSR programs forego the opportunity to spend those funds on more direct activities impacting financial performance. There appears to be a very evident pattern; when a firm becomes more successful, it is at the expense of CSR. When CSR increases for a firm, its financial performance declines.

  The negative relationship found in this study is not likely to be "good news" for many CSR researchers and teachers. It becomes more difficult to convince firms to be socially responsible when a negative tradeoff is found to exist. Given the current political environment, and the new emergent social contract articulated in Washington, DC, many firms may become even more inclined to focus on their economic responsibilities at the expense of their social. As a result, the negative relationship found through this study is likely to accelerate.
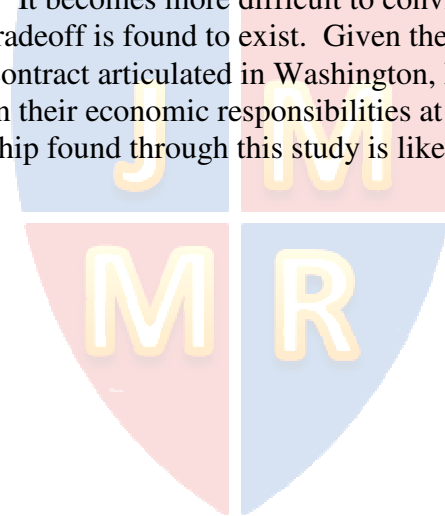
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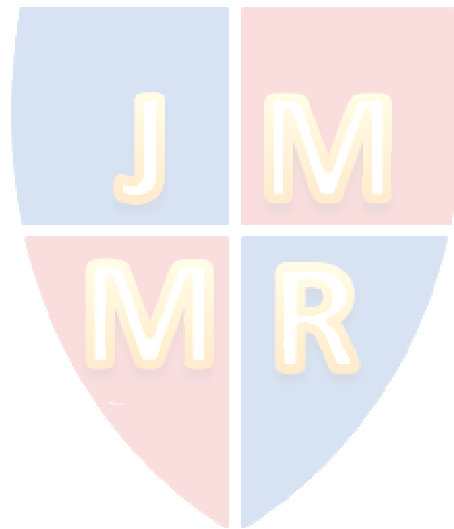
Appendix A

   To facilitate a relevant scoring procedure that could be used in correlating CSR with profitability, ACH chose to combine the weights of the three non-economic components. This category was denoted as "concern for society" (CS) and indicated the relative emphasis each respondent placed collectively on the three non-economic components. As a result, a firm's CS score became a surrogate for CSR. While the CS index is a composite of the non-economic components, each was found by ACH to be clearly differentiated from the economic index. The CS components were not only statistically independent of each other but were found to share an inverse relationship with the economic component.

   The ACH research was based upon a carefully constructed instrument that in turn was driven through the well-recognized construct of Carroll (1979). The research instrument relied upon a forced-choice methodology and employed generic, as opposed to industry specific, CSR statements. A forced-choice instrument is especially germane to the CSR research area since it can limit a given respondent's social-desirability bias. The reason for using this technique is to require the respondent to choose from a number of reasonably legitimate and potentially attractive choices and to force a response. This prevents the respondent from claiming that everything is important. The repetitiveness of the questionnaire generated high Cronbach alphas, suggesting high reliability. In addition, a large sample was used. Finally, both profitability and risk were employed. As a consequence, several concerns raised by Ullman (1985) appeared to have been addressed, thus setting the stage for follow-up studies.

   It can be argued that the procedures used by ACH (1985) to assess CSR are far from perfect. The use of generic statements may not always be useful when surveying a specific industry. Also, it is generally ideal to survey multiple personnel within a given organization, particularly given the value-laden nature of CSR. However, it is not clear that a reliance on a single respondent is improper. For instance, Cox (1988) reported that a recent survey by the Council of Foundations found corporate philanthropy to be largely determined by the CEO. This appears to be consistent with the strategic management literature that views CEOs as the dominant actor in a corporation. Hambrick (1989: 5) provides strong arguments as to why surveying CEOs is useful:

>   Ultimately, they [strategic leaders] account for what happens to the organization...
>   As a result, if we want to explain why organizations do the things they do, or, in
>   turn, why people perform the way they do, we must examine the people at the top.

TABLE 1*

Descriptive Statistics and Correlations

Variables	N	Means	Standard Deviations	1	2	3	4	5	6	7	8	9
2001-2006												
1. Long Term Beta	41	0.94	0.23									
2. Long Term Safety	42	2.58	0.90	.68								
3. Long Term ROA	41	9.39	4.56	.22	-.22							
2007-2011												
4. Long Term Beta	43	0.96	0.23	.79	.56	.26						
5. Long Term Safety	43	2.67	0.72	.16	.32	-.44	.13					
6. Long Term ROA	42	10.76	5.10	.20	.34	.26	.17	-.46				
2012-2016												
7. Long Term Beta	132	1.04	0.25	.48	.23	.45	.63	.01	-.00			
8. Long Term Safety	132	2.63	0.72	-.16	.09	-.23	-.13	.58	-.46	.38		
9. 1981 % Allocation to Corporate Social Responsibility	45	0.65	0.09	-.20	-.24	.04	-.34	.17	-.20	-.19	.01	
10. 1988 % Allocation to Corporate Social Responsibility	188	0.65	0.09	.02	-.26	-.23	-.04	.02	-.41	-.23	-.14	.16

* Correlations greater than .30 are significant at $p < .05$

TABLE 2

The Impact of Success Variables on Corporate Social Responsibility and Vice-Versa

(Coefficient/Significance Level)

Dependent variable (column)	Predictor period (rows)	N	Long Term Beta	Long Term Safety	Long Term ROA
Corporate Social Responsibility 2006 (% Allocation to CSR)	Success Measures 2001-2005	41	-.084 (.219)	-.026 (.125)	.0009 (.811)
Success Measures 2007-2010	Corporate Social Responsibility 2006	37	-.822** (.030)	1.191 (.301)	-10.930 (.211)
Corporate Social Responsibility 2011 (% Allocation to CSR)	Success Measures 2007-2010	27	-.012 (.847)	.002 (.933)	-.006** (.049)
Success Measures 2012-2017	Corporate Social Responsibility 2011	61	-.062* (.087)	.012 (.755)	.003** (.038)

* $p < .10$
** $p < .05$

TABLE 3

Canonical Correlation Coefficients of the Effects of Corporate Social Responsibility on Success Controlling for Prior Success and Vice-Versa

Success 2001-2005	Corporate Social Responsibility 2006	Success 2007-2010	Corporate Social Responsibility 2011	Success 2012-2017
	N = 32			
Long Term Beta		Long Term Beta		Long Term Beta
Long Term Safety	% Allocation to CSR -.411*	Long Term Safety		Long Term Safety
Long Term ROA		Long Term ROA	% Allocation to CSR	Long Term ROA
	.867***			
		N = 22		
% Allocation to CSR		Long Term Beta		Long Term Beta .324**
% Allocation to CSR		Long Term Safety -.327		Long Term Safety
		Long Term ROA .159		Long Term ROA
			N = 27	
			% Allocation to CSR .848***	

* p < .10
** p < .05
*** p < .001