PPBRI | PAN-PACIFIC JOURNAL OF BUSINESS RESEARCH

Volume 3, No. 2 Fall, 2012

Table of Contents

Pan-Pacific Journal of Business Research

1. Topics: All areas of business, economics, and information systems

2. Manuscript Guidelines/Comments:

Pan-Pacific Journal of Business Research (PPJBR) is a double blind peer reviewed Journal focusing on integrating all areas of business, economics, finance, and Information Systems. PPJBR pursues high quality researches significantly contributing to the theories and practices of all areas of business, economics, and Information Systems. PPJBR is an academic journal listed on Cabell Directory. PPJBR consider for publication the following topics in all areas of business and economics including Accounting, Economics, Entrepreneurship, Finance, Hospitality Management, International Business, Marketing, Human Resource Management, Operation Management, Information Systems, Strategy, and Supply Chain Management:

- Current and new theories.
- New regulations and policies.
- Application of business and economic theories.
- Case studies exploring current issues
- Pedagogical issues in business education

3. Submission:

Authors are required to submit their article or manuscript electronically at info@ppbri.org.
Before submission, the article or manuscript should not be published in any other journal. The article or manuscript should be in MS Office Word format. It should be written in a single space with a maximum number of 15 pages and 12 font size. Title, the name(s), affiliation(s), address (es), phone number(s), and email(s) of authors should be on the cover page. Contact author should be indicated. Only an abstract of the article or manuscript in 250 words, title, and 4 key words should be shown on the second page. PPJBR generally follows the American Psychological Association (APA) guidelines. Reference should be presented in a separate sheet at the end of the article or manuscript. Tables, figures, footnotes, and their numbering should appear on the appropriate page. The usage of footnotes should be minimized. The decision of acceptance usually takes three months. After acceptance, PPBRI has a copy right for the accepted article and manuscript.

The article or manuscript should be submitted to: Dr. Kyung Joo Lee, Editor, Kiah Hall Suite 2110, Princess Anne, MD 21853. Phone: 410-621-8738. Email: info@ppbri.org

The Association between the Firm's Social Performance and Its Financial Performance: Evidence from Korean Firms

Kyung Joo Lee*, University of Maryland-Eastern Shore

Mi-Young Kang, Jeju National University

ABSTRACT

The purpose of this study is to examine whether the firm's social performance is systematically related to its financial performance. Based on the argument that corporate social activities would play the role of mitigating conflicts between firms and society, we hypothesized that the firm's social performance would enhance its financial performance. Specifically, the firms with higher social performance are predicted to have higher financial performance than those with lower social performance. This hypothesis was tested using 244 Korean firms over five-year period. An index published by Korean Economic Justice Institute (KEJI) was used as the measure of social performance. Our empirical results suggest that the firms with higher social performance generally exhibit better financial performance as measured by profitability, growth and safety.

In particular, the firms' financial performances are strongly related to their social performance measures such as soundness (SDN) and fairness (JST) of business activities, environmental protection (ENV), and contribution to economic development (ECD).

Key words: Social performance, Financial performance, KEJI index

JEL Classifications: M40, M41

---

* The corresponding author, kjlee@umes.edu

1. INTRODUCTION

A considerable body of research has investigated whether the firm's social performance affects its financial performance.[1] While many studies have documented positive relation between social performance and financial performance (e.g., Bragdon and Marlin, 1972; McGuire et al., 1988; Herremans et al., 1993; Pava and Krausz, 1996; Waddock and Graves, 1997; Dowell et al., 2000; King and Lenox, 2001; Tsoutsoura, 2004; Al-Tuwaijiri et al., 2004), other studies have showed negative relation (e.g., Vance, 1975; Brammer et al., 2005) or no relation (e.g., Alexander and Buchholz, 1978; Aupperle et al., 1985; Nelling and Webb, 2006). Only a few studies have investigated the relation between social performance and financial performance for the Korean firms to find mixed results (e.g., Park and Lee, 2002; Park et al., 2004). A motivation for this study comes from these mixed results, especially for the Korean firms.

The remainder of this paper is organized as follows. In the next section, we describe potential relationship between the firm's social performance and financial performance, and develop research hypothesis. Section three contains research design including sample selection, measurements of variables and methodology. Empirical results are presented in Section four. A summary of the results and some suggestions for future research appear in the final section.

2. Hypothesis Development

These days, firms operate in an environment surrounded by many interest groups such as employees, customers, suppliers, and local communities. These stakeholders usually demand firms' responsibilities for the society, thereby often causing conflicts between firms and society. The firms involved in conflicts would face the risks of deteriorating their financial performance. Therefore, firms should make efforts to satisfy their stakeholders so much as to maximize stockholders' wealth because firms facing conflicts with stakeholders would suffer from additional expenses and increased risks.[2]

---

[1] A firm's social performance can be loosely defined as "a measure of corporate social activities taken by the company to prevent or mitigate various conflicts with society".

[2] A contrasting perspective views corporate social activities as a kind of agency costs resulting from the management's misuse of corporate resources for his/her personal career goals or other purposes ('agency theory

Corporate social activities can affect the firms' financial performance in the following ways (See, for example, Freeman, 1984; Swanson, 1999; Paine, 2002). First, consumers prefer the products or services provided by the firms with high social performance ('product preference effects'). This would enable these firms to create (maintain) new (current) market shares, thereby improving their profitability. Second, the firm's environmental activities may contribute to cost savings by reducing wastes such as greenhouse gases and toxic chemical materials. Third, social activities by firms can improve their relationship with regulators. This will not only reduce future regulatory costs, but also expand business segments for the firms, especially in regulated industries. Fourth, firms with good records on social responsibilities will be able to recruit employees of good quality and motivate them because corporate image/reputation is an important factor for job choice (Montgomery and Ramus, 2003). This will eventually bring an improvement in employee productivity.

According to this 'stakeholder theory perspective', the firm's social performance would have positive effects on its financial performance through consumers' product preferences, reductions in waste disposal or regulatory costs, and high productivity. Hence, we have the following hypothesis:

Hypothesis: *Financial performance is higher for the firms with higher social performance than for those with lower social performance.*

3. Sample Selection and Measurement of variables

Sample: Our sample consists of 244 Korean firms for which Korean Economic Justice Institute (KEJI) published indices that measure the performances of their social responsibility activities (KEJI index). To be included in the sample, the firm must satisfy the following criteria: (1) each firm had to be included in KEJI index publication every year over five-year period; (2) sufficient financial data was available in KIS-FAS database to calculate financial performances and other variables.

---

perspective'). Therefore, the firm's social performance would have negative relation to financial performance and eventually sacrifice the stockholders' wealth (Friedman, 1970; Pava and Krausz, 1996).

Social Performance: The firm's social performance was measured by KEJI index. KEJI has published the index for the manufacturing firms listed in the Korean Stock Exchange since 1991. KEJI index is a score based on the evaluation of a firm's business activities using six components – soundness (SDN) and fairness (JST) of business activities, contribution to social service (SSD), environmental protection (ENV), consumer protection (CSD), employee satisfaction (EMP), and contribution to economic development (ECD) – with different weights.

There are other indices that can be used as a measure of social performance for Korean firms. These include Corporate Favorite Index published by Korean Chamber of Commerce, Social Contribution Index by Korean Economic Associates, and Sustainability Index by Eco-Frontier. Our choice of KEJI index is due to the following advantages that it has over other measures. First, KEJI index provides a composite measure of social performance based on many aspects of the firm's social activities. Second, it represents a reliable and stable index because of its continuous publication over 15 years by a prestigious NGO. Third, it measures the firm's social performance by using objective data from various sources and applying both quantitative and qualitative evaluation techniques.

Table 1 presents descriptive statistics for corporate social performance – overall performance measure (KEJI index) and each of six components. KEJI index ranges from 402.70 to 749.89 with mean (median) of 612.38 (619.75). While not reported in the table, all the measures (mean, median, minimum and maximum) of KEJI index has been increasing over time. This suggests the trend of improvements in social performances by Korean firms. Two additional observations are noteworthy from Table 1. First, compared with other measures, JST and CSD have higher mean (median) values of 118.39 (124.00) and 70.63 (70.00), respectively. Second, ENV and SSD show relatively smaller (median) values of 69.35 (70.08) and 39.85 (39.56), respectively. These results suggest that Korean firms have not been making enough contributions to the activities related to social service/welfare and environmental protection.

<Insert Table 1>

Financial Performance: We used returns on assets (ROA), growth rate of sales (GSALE) and debt to equity ratio (LEVG) to measure the firm's financial performance - profitability, growth and safety, respectively. These accounting measures of financial

performance are extensively used in previous studies (e.g., Bragdon and Marlin, 1972; McGuire et al., 1988; Herremans et al., 1993; Pava and Krausz, 1996; Waddock and Graves, 1997; Park et al., 2004; Tsoutsoura, 2004) and defined as follows:[3]

ROA = Net Income/Total Assets,

GSALE = Percentage changes in sales revenue over a year,

LEVG = Total Liabilities/Stockholders' Equity

Table 2 presents descriptive statistics for financial performance variables. ROA, the most extensively used measure in prior studies, ranges from -2.80% to 7.79%, with mean (median) value of 2.07% (1.58%). Sample firms show, on average, annual sales growth rate of 13.04% and debt to equity ration of 209.75%. This suggests that our sample includes financially sound firms.

<Insert Table 2>

4. Empirical Results

4.1 Mean Difference Comparison Analysis

We used both parametric t-test and nonparametric Wilcoxon Rank-sum test to analyze whether significant difference in financial performance exists between firms with high social performance and those with low social performance. Each year, sample firms were partitioned into two subgroups based on their social performance (KEJI index): i.e., Low and High social performance group. The relation between social performance and financial performance was then examined by comparing three measures of financial performance (ROA, GSALE, and LEVG) between low and high social performance groups.

Table 3 presents the results of comparing financial performances between two social performance subgroups (low and high) and corresponding t-statistics and z-statistics for three different financial performance metrics.

High social performance firms show larger mean values of ROA (2.47% vs. 1.67%) and GSALE (15.26% vs. 10.81%) than low social performance firms. The differences are

[3] We also used returns on equity, growth rate of total assets, and current ratio as alternative measures for ROA, GSALE and LEVG, respectively. The results are basically the same.

statistically significant (α<0.01). However, high social performance firms have significantly (α<0.01) smaller LEVG (192.32% vs. 227.21%) than low social performance firms.

Overall, these results indicate that firms with higher social performance show larger profitability and growth rate, but smaller debt to equity ratio, lending support to our hypothesis of positive relation between the firm's social performance and financial performance.

<Insert Table 3>

4.2 Regression Analysis

Given a strong relation between the firm's financial performance measures and its overall measure of social performance (KEJI index), we further analyzed correlation coefficients between financial performance and six components of KEJI index to identify the sources of corporate social activities that affect the firm's financial performance.

Table 4 shows that overall social performance index, KEJI, has significantly (α<0.01) positive correlations with both ROA and GSALE, but a negative correlation with LEVG. These results are consistent with those from the univariate analysis in Table 3. More importantly, Table 4 shows that SDN and ECD are main factors affecting the firm's profitability (ROA), while SDN, JST and SSD are affecting the debt to equity ratio (LEVG). The firm's growth (GSALE) has not only the highest correlation coefficient with KEJI, but also positive correlation coefficients with most components except CSD and EMP. This suggests that corporate social activities would have most significant impact on the firm's sales.

<Insert Table 4>

As an attempt to investigate whether the firm's social performance affects its financial performance, we estimate the following regression model:

$$FP_{it} = b_0 + b_1 SDN_{it} + b_2 JST_{it} + b_3 SSD_{it} + b_4 ENV_{it} + b_5 CSD_{it} + b_6 EMP_{it} + b_7 ECD_{it} + b_8 SIZE_{it} + \varepsilon_{it} \quad (1)$$

Where,

FP = financial performance, as measured by ROA, GSALE, and LEVG

SDN = soundness of business activities,

JST = fairness of business activities,

SSD = contribution to social service,

ENV = environmental protection activities,

CSD = consumer protection activities,

EMP = employee satisfaction,

ECD = contribution to economic development,

SIZE= firm size as measured by sales.

b_i = the partial regression coefficients of variable 'i',

ε = the error term.

The variable, SIZE, was included in order to control for potential effect of firm size on financial performance.[4] We estimate the regression model (1) by pooling five years of cross-sectional data.

Results from estimating the regression model (1) are presented in Table 5. When ROA was used as a dependent variable, components for social performance measure have significantly (α<0.10) positive coefficients except SSD and EMP. JST, ENV and ECD have significantly (α<0.01) positive coefficients for GSALE, while SDN, JST, EMP and ECD have significantly (α<0.10) negative impact on LEVG.

Table 5 shows that only three components, JST, ENV and ECD, are consistent with their predicted relations with financial measures, i.e., significantly positive coefficients with ROA and GSALE, but negative coefficient with LEVG. However, overall results suggest that social performance measures are strongly related to financial performance measures. These findings are consistent with those in previous studies (e.g., McGuire et al., 1988; Herremans et

[4] We also estimate the regression model by (1) omitting SIZE variable, (2) including SIZE and industry dummy variables, and (3) including only industry dummy variables. The results remain the same.

al., 1993; Waddock and Graves, 1997; Park et al., 2004; Tsoutsoura, 2004; Dowell et al., 2000; King and Lenox, 2001; Park and Lee, 2002).

Overall, these results lend strong support to our hypothesis that the firm's social performance is positively related to its financial performance. While we find similar results to those of previous studies, our results are stronger in the following ways. First, we adopt both univariate and multivariate analyses to find significantly positive corporate social-financial performance relationship. Second, we used different measures of financial performance – profitability, growth and safety. Third, we utilize not only the component of KEJI index (e.g., Park and Lee, 2002; Park et al., 2004), but also total KEJI index score as a measure of the firm's social performance.

<Insert Table 5>

5. Conclusion

The purpose of this study is to examine whether the firm's social performance is systematically related to its financial performance. Based on the argument that corporate social activities would play the role of mitigating conflicts between firms and society, we hypothesized that the firm's social performance would enhance its financial performance. Specifically, the firms with higher social performance are predicted to have higher financial performance than those with lower social performance. This hypothesis was tested using 244 Korean firms over five-year period. An index published by Korean Economic Justice Institute (KEJI) was used as the measure of social performance.

The empirical results suggest that the firms with higher social performance generally exhibit better financial performance as measured by profitability, growth and safety. In particular, the firms' financial performances are strongly related to their social performance measures such as soundness (SDN) and fairness (JST) of business activities, environmental protection (ENV), and contribution to economic development (ECD). These results are robust across different measures of variables and testing methodologies.

Our findings have some implications for business practices. First of all, the positive relation between the firm's social performance and its financial performance suggests that corporate social activities are not an expense, as argued by some skeptics, but an investment which can eventually contribute to the improvement in the firm's financial results such as

profitability, growth and safety. Second, our results would provide the firms' CEOs new insights about corporate social responsibilities and encourage them to engage in various social activities as a business strategy.

Several related issues are left for future research. First, it has not been fully examined whether the firm's social performance and financial performance have any causal relationship. For example, financially sound firms may be more active in social activities, which in turn would bring even better financial results. Investigation into a lead-lag relationship in social-financial performance link or the use of simultaneous equation system may be useful approaches to address this issue. Second, market-based measures of financial performance such as firm value, stock returns and the cost of capital can be used, as alternatives to accounting measures. Finally, firm characteristics variables such as CEO's management philosophy, degree of foreign exposure, and foreign investor ownership may affect the firm's strategy for social activities. Hence, investigation into the effects of these factors on the firm's social performance and its relationship with financial performance will provide further insights into the social-financial performance link.

References

Alexander, G. J. and R. A. Buchholz: 1978, "Corporate Social Responsibility and Stock Market Performance", *Academy of Management Journal* 21, pp. 479-486.

Al-Tuwaijri, S. A., T. E. Christen and K. E. Hughes: 2004, "The Relation among Environmental Disclosure, Environmental Performance, and Economic Performance: A Simultaneous Equations Approach", *Accounting, Organization and Society* 29(5-6), pp. 447-471.

Aupperle, K. E., A. B. Carroll and J. D. Hatfield: 1985, "An Empirical Examination of the Relationship between Corporate Social Responsibility and Profitability", *Academy of Management Journal* 28(2), pp. 446-463.

Bragdon, J. and J. Marlin: 1972, "Is Pollution Profitable?" *Risk Management* 19, pp. 9-18.

Brammer, S., C. Brooks and S. Pavelin: 2005, "Corporate Social Performance and Stock Returns: UK Evidence from Disaggregate Measures", *Working Paper*.

Chung, K. H. and S. W. Pruitt: 1994, "A Simple Approximation of Tobin's Q", *Financial Management* 23(3), pp. 70-74.

Dowell, G., S. Hart and B. Yeung: 2000, "Do Corporate Global Environmental Standards Create or Destroy Market Value?" *Management Science* 46(8), pp. 1059-1074.

Herremans, I. M., P. Akathaporn and M. McInnes: 1993, "An Investigation of Corporate Social Responsibility Reputation and Economic Performance", *Accounting, Organization and Society* 18(7-8), pp. 587-604.

King, A. A. and M. J. Lenox: 2001, "Does It Really Pay to Be Green? An Empirical Study of Firm Environmental and Financial Performance", *Journal of Industrial Ecology* 5(1), pp. 105-116.

McGuire, J. B., T. Schneeweiss and A. Sundgren: 1988, "Corporate Social Responsibility and Financial Performance: Correlation and Misspecification", *Strategic Management Journal* 21, pp. 603-609.

Park, H. J., I. Kwon, H. Shin and J. Chung: 2004, "The Relationship between Firm Environmental Performance and Financial Performance", *Korean Management Journal* 33(5), pp. 1461-1487

Park, H. J. and J. Lee: 2002, "Donation and Environmental Protection: Empirical Study on the Relation between Firm Social Contribution Activities and Financial Performance", *Personnel and Organization Journal* 10(1), pp. 95-133.

Pava, M. and J. Krausz: 1996, "The Association between Corporate Social Responsibility and Financial Performance: the Paradox of Social Cost", *Journal of Business Ethics* 15(3), pp. 321-357.

Spicer, B. H.: 1978, "Market Risk, Accounting Data and Companies' Pollution Control Records", *Journal of Business Finance and Accounting*, pp. 67-83.

Vance, S. C.: 1975, "Are Socially Responsible Corporations Good Investment Risk?" *Management Review* 64(8), pp. 18-24.

Waddock, S. A. and S. B. Graves: 1997, "The Corporate Social Performance-Financial

Performance Link", *Strategic Management Journal* 18(4), pp. 303-319.

<Table 1> Descriptive Statistics of Corporate Social Performance

Performance Index (max)	Mean	Std Dev	Min	Median	Max
SDN (200)	134.18	21.56	75.52	134.92	193.21
JST (150)	118.39	22.28	55.00	124.00	148.00
SSD (100)	39.85	15.79	7.10	39.56	99.36
ENV (150)	69.35	15.72	19.90	70.08	117.19
CSD (100)	70.63	11.64	26.30	70.00	108.00
EMP (150)	93.57	15.43	11.02	94.16	146.53
ECD (150)	78.68	23.95	26.90	74.16	181.10
KEJI (1,000)	612.38	50.35	402.70	619.75	749.89

KEJI index, a measure of corporate social performance, published by Korean Economic Justice Institute (KEJI), is a score based on the evaluation of a firm's business activities using six items – soundness (SDN) and fairness (JST) of business activities, contribution to social service (SSD), environmental protection (ENV), consumer protection (CSD), employee satisfaction (EMP), and contribution to economic development (ECD) – with different weights.

`

<Table 2> Descriptive Statistics of Financial Performance

Variables	Mean	Std Dev	Min	Median	Max
Return on Assets (ROA) [1]	2.07	2.54	-2.80	1.58	7.79
Sales Growth Rate (GSALE) [2]	13.04	12.96	-8.58	11.35	41.67
Debt to Equity Ratio (LEVG) [3]	209.75	126.44	52.03	180.71	537.14

1. Return on Assets=Net Income/Total Assets
2. Growth Rate of Sales=Percentage changes in sales revenue over a year
3. Total Liabilities/Stockholders' Equity

<Table 3> Comparison of Financial Performances between Low and High Social Performance Groups

	Social Performance Groups		t-Test		Wilcoxon Rank-Sum Test	
	Low	High	t-statistics	p-value	z-statistics	p-value
ROA	1.67	2.47	5.54***	0.0001	5.83***	0.0001
GSALE	10.81	15.26	6.07***	0.0001	6.13***	0.0001
LEVG	227.21	192.32	4.86***	0.0001	3.69***	0.0001

***: Significant at $\alpha<0.01$; **: Significant at $\alpha<0.05$; *: Significant at $\alpha<0.10$

<Table 4> Correlation Coefficients between the Firm's Social Performance and Its Financial Performance

Panel A: Pearson Correlation								
	KEJI	SDN	JST	SSD	ENV	CSD	EMP	ECD
ROA	0.134***	0.081***	0.034	0.005	0.032	-0.017	-0.037	0.190***
GSALE	0.239***	0.066***	0.184***	0.143***	0.144***	0.005	-0.001***	0.149***
LEVG	-0.127***	-0.325***	-0.099***	0.088***	0.021	0.019	0.001	0.028
Panel B: Spearman Correlation								
	KEJI	SDN	JST	SSD	ENV	CSD	EMP	ECD
ROA	0.138***	0.075***	0.040	0.000	0.038	0.002	-0.030	0.235***
GSALE	0.252***	0.066***	0.189***	0.141***	0.158***	0.101***	0.016	0.149***
LEVG	-0.103***	-0.283***	-0.109***	0.092***	0.022	0.046	0.004	0.019

***: Significant at $\alpha<0.01$; **: Significant at $\alpha<0.05$; *: Significant at $\alpha<0.10$

<Table 5> The Effect of the Firm's Social Performance and Its Financial Performance: Regression Analysis [1]

$$FP_{it} = b_0 + b_1SDN_{it} + b_2JST_{it} + b_3SSD_{it} + b_4ENV_{it} + b_5CSD_{it} + b_6EMP_{it} + b_7ECD_{it} + b_8SIZE_{it} + \varepsilon_{it}$$

Financial Performance (FP)	ROA	GSALE	LEVG
Independent Variables	Coefficients (t-value)	Coefficients (t-value)	Coefficients (t-value)
Intercept	-3.715 (3.70)***	-35.963 (7.19)***	338.071 (7.45)***
SDN	0.010 (3.10)***	0.024 (1.41)	-1.981 (12.52)***
JST	0.018 (4.15)***	0.197 (8.79)***	-0.361 (1.77)*
SSD	0.003 (0.65)	0.028 (1.02)	-0.148 (0.58)
ENV	0.008 (1.64)*	0.086 (3.52)***	0.324 (1.44)
CSD	0.011 (1.70)*	0.024 (0.75)	0.046 (0.16)
EMP	-0.009 (2.00)**	-0.041 (1.79)*	-0.351 (1.66)*
ECD	0.037 (10.26)***	0.210 (11.57)***	-0.743 (4.46)***
SIZE	-0.215 (3.52)***	0.111 (0.37)	35.857 (12.95)***
Adj. R^2	0.084	0.138	0.246

1. FP= financial performance, as measured by ROA, GSALE, and LEVG;

   SDN = soundness of business activities; JST = fairness of business activities;

   SSD = contribution to social service; ENV = environmental protection activities;

   CSD = consumer protection activities; EMP = employee satisfaction;

   ECD = contribution to economic development; SIZE= firm size as measured by sales.

2. ***: Significant at $\alpha<0.01$; **: Significant at $\alpha<0.05$; *: Significant at $\alpha<0.10$