



# FINANCIAL PERFORMANCE AND EARNINGS MANAGEMENT OF SOCIALLY RESPONSIBLE INVESTING FUND FIRMS

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*\*This research was supported by the Research Grant of Hankuk University of Foreign Studies.*

## ABSTRACT

### KEYWORDS:

*Corporate Social Responsibility (CSR), Social Responsibility Investing (SRI), SRI Fund, Earnings Management*

*Corporate social responsibility (CSR) activities of firms may or may not lead to good financial performance, depending on whether they can boost their revenue more than enough to cover the costs of CSR activities. However, when the earnings of CSR firms are not expected good enough owing to their CSR expenditure, the management of those firms may have motivation to manage earnings. Therefore, if financial performance of CSR firms appears good, it might result from earnings management. This study, defining CSR firms as the firms whose stocks are included in the socially responsible investing (SRI) fund, examines their financial performance in terms of ROE and ROA, and empirically tests whether there exists an association between these performance measures and earnings management. The sample used here consists of Korean listed firms whose stocks were selected into an SRI fund from 2010 to 2015. The study found an evidence of earnings management of SRI fund firms.*

## 1. INTRODUCTION

Corporate management has been expanding its investment in accordance with sustainable and responsible investing (SRI) strategies. "The individuals, investment companies, and financial institutions that practice SRI seek to achieve long-term financial returns together with positive societal impact. SRI strategies can be applied to promote stronger corporate social responsibility (CSR), build long-term value for companies and their stakeholders, and foster businesses, generate jobs or introduce products that will yield community and environmental benefits" (US SIF Foundation, 2012).

As corporations have expended huge amount of resources in CSR activities, the investors becoming interested in the financial performance of these firms' ask naturally the following questions. Would CSR activities be contributory to their long term wealth? Would SRI factors offer investors potential long-term advantages? Many studies have been conducted for more than thirty years to answer those question, but their findings have been mixed and not unambiguous.

Accordingly, this study will look into various financial characteristics of CSR firms, namely firms whose stocks have been selected into socially responsible investing funds (hereafter SRI fund firms) and their financial performance. If SRI fund firms are found to show good financial performance, a next question would arise: Will the managers not try to have their company stock enlisted in SRI funds by earnings management when the corporate earnings

are an important factor for selection as an SRI firm? This study will also attempt to find an answer to this question.

The remainder of this research is as follows. Part II reviews prior literature and develops a research hypothesis. Part III presents the research model and the sampling procedure. Part IV provides the empirical results of this study, and Part V concludes with a summary of the study.

## 2. OBJECTIVES, LITERATURE REVIEW, AND HYPOTHESIS

Following the recent movement toward mutual benefits among companies and society, and financial community's increasing awareness of the importance of social responsibility, studies on CSR such as Carroll (1999), Magness (2006), Orij (2010), and Dhaliwal et al. (2012) discuss ethical behaviors of firms. Bentham (1996) and Carroll (1999) report that the interests or overall philanthropic view of the stakeholders of firms heavily influence the firms' decisions about ethical behavior such as monetary donations. Lev et al. (2010) argue that firms may practice CSR to develop their reputations because they anticipate a good reputation leads their sales increase.

As increasingly more firms have been certified as socially responsible (CSR), many studies have attempted to establish a link between CSR certification/activities of firms and their financial performance in OECD countries over the last three decades. Mallin et al. (1995) show that ethical trust funds perform better than non-ethical ones, but with both trust fund groups performing worse than the market. Waddock and

Graves (1997) construct a Corporate Social Performance (CSP) index, as proposed by Ullman (1985), based on the eight CSP attributes rated (by KLD, an independent rating service firm) across the entire S&P 500. Using this CSP index and rate of return measures (ROA, ROE, etc.) they find that changes in CSP positively influence financial performance, and vice versa (changes in financial performance positively influence CSP), and conclude that better financial performance potentially leads to more slack resources available for CSP activities. Derwall et al. (2005) find significant out-performance by environmentally friendly stock portfolios over non-friendly ones. The different investment styles of investors might lead to the variety of results (Derwall et al., 2011). Poddi (2009), using a CSR index intersecting two of the three major international indices (Dow Jones Sustainability World Index, etc.) finds that CSR firms reveal better long-run performance. Dhaliwal et al. (2012) reports that CSR disclosures affect analysts' behavior in a more favorable way.

Contrary to the above evidences of a positive relationship between CSR certification and the performance of firms, several studies have reported insignificant or negative link. Luther et al. (1992) find weak evidence of out-performance of U.K. ethical funds over their conventional counterparts. Hamilton et al. (1993) do not find any significant difference in the returns between SRI funds and conventional investment vehicles established before 1985 and since 1986. Gregory et al. (1997) report that ethical funds are likely to underperform their benchmarks. Statman (2000) reports that SRI mutual funds showed an insignificantly higher average return, than conventional mutual funds. Bauer et al. (2005) do not find any evidence of significant differences in returns between ethical and conventional German, UK, and US funds for the period from 1990 to 2001. Bauer et al. (2006), extending their 2005 study to the Australian market find the same performance of 25 ethical mutual funds as that of the *Worldscope* Australian Index during the period from 1996 to 2003. Kreander et al. (2005) find no signs of out-performance (in terms of log returns) of European ethical funds over non-ethical funds.

As mentioned above, the results of the studies conducted in OECD countries have been ambiguous and not shown any consistent relationship. However, most studies conducted in this area in Korea have revealed that CSR firms or activities lead to higher financial performance. Kim (2009) shows that CSR firms are likely to have longer age, and higher growth potential, and that CSR activities are positively associated with the firm value. Kook et al. (2011) find that CSR activities improve the values of Korean corporations. Shin (2011) shows that the both CSR expenditure (contribution expenditure ratio and Korea Economic Justice Institute Index, KEJII) have a significantly positive effect on the value of Korea Exchange-listed firms as the investment on intangible assets (reputation). Yoon et al. (2012) find that Korean SRI-fund corporations perform financially better after than before being included into SRI funds for the period of early 2003 to late 2010. Ko and Kim (2015) and Ko (2017) report that SRI fund firms financially outperformed non-SRI ones in Korea Securities Market from 2007 to 2010, and from 2010 to 2015, respectively.

However, fewer studies have examined the managerial choices and the signals on financial performances with CSR activities, particularly the role of CSR on earnings quality. Jones (1995) presented that firms demonstrate their

philanthropic and ethical behavior when they run their business with integrity. Such firms are more likely to participate in CSR activities and to provide reliable financial statements. This finding seems to be consistent with Paine (1994), who suggested that ethical and philanthropic managers tend to be actively involved in CSR as an exemplary conduct. Furthermore, these firms are encouraged to display more ethical conduct to prevent behaviors that may damage the firm's value. If this is the case, the managers would provide more accurate and reliable financial reports, which disclose the high quality earnings.

However, Hobson and Kachelmeier (2005) suggest that managers may have a motive to misuse CSR disclosures, to compensate for poor quality of earnings. Prior et al. (2008) examined whether firms strategically use CSR in financial reports. Using 593 sample firms, they found a positive relationship between the discretionary accruals computed based on the performance-matched model (Kothari et al., 2005) and a CSR score computed based on non-financial qualitative factors. Kim et al. (2012) found a negative relationship between earnings management and CSR scores in the U.S., by using the CSR index. However, Chih et al. (2008) found inconsistent evidence regarding the earnings management of CSR firms.

Unlike the prior studies, Pyo et al. (2013) employed donation expenditures and the voluntary filing of CSR reports with GRI, to test whether CSR activities are driven by the integrity or opportunistic motivation. They examined the association between earnings quality and two voluntary CSR activities, namely the level of corporate donations (a direct measure of managers' willingness to conduct CSR activities) (Card et al., 2010) and/or the voluntary issuance of CSR reports filed with the Global Reporting Initiative (GRI) as proxies for CSR activities (a direct signal of managers' willingness to conduct CSR activities) (Dhaliwal et al., 2011). They provided evidence that the firms active in CSR are likely to report earnings with a higher quality. Specifically, after controlling for firm-specific factors, the firms with more corporate donations have lower discretionary accruals and greater accounting conservatism. Furthermore, this negative relationship between donation and discretionary accruals is more pronounced, when firms voluntarily issue CSR reports. Ko et al. (2015) find that SRI firms showed less earnings management (higher earnings quality) compared to the non-SRI fund firms.

Consequently, CSR qualification seems to have an unclear net effect on earnings quality. Therefore, conducting additional empirical tests would be of great interest to shareholders and policy makers. The above discussions lead to the following hypothesis in null form.

H: SRI fund firms do not more engage in earnings management (namely, reporting low quality of earnings) than non-SRI firms.

### 3. METHODOLOGY: RESEARCH MODEL

#### 3.1. The Hypothesis Testing Model

The following model, equations (1) is established to test the hypothesis. The primary independent variable representing whether a firm is an SRI fund firm is SRI, a dummy variable. Earnings management (or quality of earnings) will be measured by a proxy, discretionary accruals (DAs) in the modified-Jones DAs (DAMJ) model as suggested by Dechow et al. (1995), DAs will be computed by using the equations (2) and (3) below.

$$DA_{it} = X_0 + \beta_1 SRI_{it} + \beta_2 ROE_{it} + \beta_3 OCF_{it} + \beta_4 SIZ_{it} + \beta_5 GRS_{it} + \beta_6 LEV_{it} + \beta_7 BIG_{it} + \beta_8 MSH_{it} + \beta_9 FSH_{it} + \beta_{10} YD_{it} + \epsilon_{it} \dots (1)$$

where

- $DA_{it}$ : Discretionary accruals of firm *i* in year *t*;
- $SRI_{it}$ : 1 if firm *i* is an SRI fund firm in year *t*, and 0 if otherwise;
- $ROE_{it}$ : Return on equity (= net income ÷ average equity) of firm *i* in year *t*;
- $OCF_{it}$ : Net operating cash flows ÷ beginning total assets of firm *i* in year *t*;
- $SIZ_{it}$ : Natural logarithm of total assets of firm *i* at the end of year *t*;
- $GRS_{it}$ : Growth rate of sales of firm *i* in year *t*;
- $LEV_{it}$ : Leverage ratio (= total liabilities ÷ total assets) of firm *i* at the end of year *t*;
- $BIG_{it}$ : 1 if Big 4 auditor audited firm *i*'s financial statements for year *t*, and 0 if otherwise;
- $MSH_{it}$ : Share percentage of major stockholders and their related party of firm *i* in year *t*;
- $FSH_{it}$ : Share percentage of foreign stockholders of firm *i* in year *t*;
- $YD_{it}$ : Dummy variable as a year control, 0 or 1;

### 3.2. Measurement of Discretionary Accruals for Earnings Management

The dependent variable, DA of the above equation is total accruals less non-discretionary accruals. Therefore, it is first computed by estimating discretionary accruals, ( $\epsilon_{it}$ ) using equation (2). This equation is based on Modified Jones Model, which was suggested by Dechow et al. (1995).

$$TA_t/ASSET_{t-1} = \beta_0/ASSET_{t-1} + \beta_1(SALES_t - AR_t)/ASSET_{t-1} + \beta_2 PPE_t/ASSET_{t-1} + \epsilon_t \dots (2)$$

where

- $TA_t$ : Total accruals (= net income - net operating cash flows) in year *t*;
- $ASSET_{t-1}$ : Total assets at the beginning of year *t*;
- $SALES_t$ : Sales increase in year *t* (=  $SALES_t - SALES_{t-1}$ );
- $AR_t$ : Accounts receivable change in year *t* (=  $AR_t - AR_{t-1}$ );
- $PPE_t$ : Net depreciable property, plant, and equipment (depreciable tangible assets) in year *t*;
- $\epsilon_t$ : Error term (Proxy for discretionary accrual)

Kothari et al (2005) examined the specification and power of tests, based on performance-matched discretionary accruals, and made comparisons with test statistics by using traditional discretionary accrual measures (e.g., Jones and modified-Jones models). They suggested that the performance- matched discretionary accrual measures would enhance the reliability of inferences from earnings management (quality) research, when the hypothesis being tested does not imply that earnings management (quality) will vary with performance or where the control firms are not expected to have engaged in earnings management (quality). This suggested model is as follows, where the performance matching based on ROA (return on assets) controls for the effect of performance on measured discretionary accruals.

$$TA_t/ASSET_{t-1} = \beta_0 + \beta_1/ASSET_{t-1} + \beta_2(SALES_t - AR_t)/ASSET_{t-1} + \beta_3 PPE_t/ASSET_{t-1} + \beta_4 ROA_t + \epsilon_t \dots (3)$$

where  $ROA_t$ : Return on asset, which is net income divided by  $ASSET_{t-1}$  in year *t*.

Based on the prior research, several control variables are added in equation (1). It is expected that ROE and GRS are positively related to discretionary accruals. Ahmed et al. (2002) reported a negative relationship between accruals and GRW or ROA. SIZE may reflect the effects from the omitted variables on earnings quality (Becker et al. 1998). LEV may capture the managers' opportunistic behaviors pertaining to earnings quality, as managers may manage earnings to avoid violations of debt covenants (DeFond and Jiambalvo, 1994). As in DeFond and Subramanyam (1998), auditors who are concerned with litigation risk may decrease discretionary accruals. BIG is expected to increase an auditor's litigation exposure, and therefore, it is negatively related to discretionary accruals.

According to the prior studies (DeFond and Jiambalvo, 1993, 1994; Francis et al., 1999; Reynolds and Francis, 2001; Simunic, 1980), it is expected that firms with a smaller size, greater leverage, lower growth rate, and higher returns are likely to manage earnings through discretionary accruals. Firms with non-Big 4 auditors may engage in earnings management (Palmrose, 1988; DeFond and Subramanyam, 1998; Reynolds and Francis, 2001; Francis, 2004).

### 4. SAMPLING DESIGN

The sample data for this study was provided by a major Korean fund valuation firm, specializing in the analysis of various funds including SRI funds. SRI funds were launched relatively lately, mainly from 2007 in Korea. The sample data was collected from the firms whose common shares were listed in Korea Securities Market and were included in SRI funds for six years from 2010 to 2015. The sample went through a further screening process to meet the following criteria.

- 1) Be listed in KOSPI (Korea Securities Market), not be listed in KOSDAQ.
- 2) Not belong to the financial industry.
- 3) Financial statement data be available from Korea Listed Companies Association's database (TS-2000).

The first criterion is necessary for the equivalence of the sample because the two Korea Exchange markets are quite different in many characteristics of their membership companies, such as firm size, business and financial risk, and industry. The second criterion is employed because business operations and financial statement items are very different between financial companies and non-financial companies. The high leverage, which is normal for financial companies, generally do not have the same meaning for non-financial companies. A high leverage of latter companies will probably signal financial distress.

The total number of SRI fund firms was initially 695 for the six years (from 2010 to 2015). As seen in Table 1, seventy nine firms, about 11% of these firms were excluded from the sample, based on the selection criteria. The excluded firms were four KOSDAQ, two non-KOSPI, six KOSPI-delisted, three whose preferred shares were included in the SRI fund, 62 in financial industry, and two merged firms. Thus, 616 SRI firm-years were selected as a final sample. Such final sample firms were more concentrated in years 2011, 2012 and 2013.

&lt;Table 1&gt; Sampling Procedure

	2010	2011	2012	2013	2014	2015	Total
Total SRI Fund Firms	88	142	161	163	76	65	695
Less:							
KOSDAQ-listed	1			3			4
KOSPI-unlisted		1	1				2
KOSPI-delisted	2	2	1	1			6
Preferred Stock	2	1					3
Financial industry	10	10	9	16	9	8	62
Merged		1				1	2
Subtotal	15	15	11	20	9	9	79
Net	73	127	150	143	67	56	616

These 616 SRI fund firm-years were from 318 different firms whose stocks were selected into the SRI fund at least once during the six year period. For the 318 SRI fund firms, financial data necessary for the study were acquired for the period of 2010 to 2015. However, out of 1,908 firm-years in total, 138 (7.3%) firm-years comprised missing financial data,

and yielded the final sample of 1,770 firm-years as seen in Table 2. Among these, 525 firm-years were SRI fund firms, and the remaining 1,245 firm-years were treated as the sample non-SRI fund firm-years, which are the total of the firms not included in the SRI fund in each year during the six year period. The highest number of SRI firms was 132 in 2012, and the lowest was 54 in 2015.

&lt;Table 2&gt; Sample Distribution by Year

Year	Total SRI Fund Firms			Non-SRI fund firms with complete data	Total Sample (with complete data)
	Total	SRI fund firms with missing data	SRI fund firms with complete data		
2010	73	7	66	181	247
2011	120	7	113	178	291
2012	142	10	132	168	300
2013	145	6	139	168	307
2014	63	1	62	250	312
2015	54	0	54	259	313
Total	597	31	566	1,204	1,770

## 5. EMPIRICAL RESULTS

### 5.1 Descriptive Statistics

The descriptive statistics of mean, standard deviation, median, minimum, and maximum values for each of the dependent, independent, and control variables used in the model are shown in Table 3. The mean value of a dependent variable, DA-MJ (DA estimated by Modified Jones model), appears about four times as much as another dependent variable, DA-KO (DA estimated by Kothari model). The mean value of the independent variable, SRI, is 0.2966. This indicates that SRI firm-years are almost 30% of the entire sample. It is

also noted that the mean value of the control variable, BIG, is 0.7446. This implies that about three quarters of the sample firms are being audited by Big 4 auditors. It is also interesting to see that averages (or median values) of ROE and OCFS are 7.5% (8.8%) and 7.6% (6.7%), respectively. Their minimum values are less than negative 400% of the average equity amount, and 50% of the asset value), respectively, and the maximum values are about 260% of the average equity and 133% of the asset, respectively.

&lt;Table 3&gt; Descriptive Statistics

Variable	Mean	Standard Dev.	Median	Minimum	Maximum
DA-MJ	0.0015	0.0022	0.0027	-0.7572	0.7838
DA-KO	0.0000	0.0021	0.0021	-0.9407	0.6081
SRI	0.2966	0.0109	0	0	1
ROE	7.46%	0.68%	8.80%	-407.35%	260.90%
OCF	7.55%	0.25%	6.71%	-54.35%	132.70%
SIZ	19.5052	0.0444	19.2240	15.4637	25.5501
GRS	15.4%	1.5%	6.8%	-98.2%	1,531.1%
LEV	0.4533	0.0048	0.4698	0.0079	1.6426
BIG	0.7446	0.0104	1	0	1
MSH	38.2%	0.4%	36.6%	0.0%	97.3%
FSH	13.4%	0.4%	7.3%	0.0%	89.7%
ROA	5.22%	9.91%	4.74%	-61.14%	104.56%
TA (in billion won)	5,568	454	481	17	242,180

DA<sub>it</sub> (DA-MJ or DA-KO): Discretionary accruals of firm i in year t (estimated by Modified Jones or Kothari model);

SRI<sub>it</sub>: 1 if firm i is an SRI fund firm in year t, and 0 if otherwise;

ROE<sub>it</sub>: Return on equity (= net income ÷ average equity) of firm i in year t;

OCF<sub>it</sub>: Net operating cash flows ÷ beginning total assets of firm i in year t;

SIZ<sub>it</sub>: Natural logarithm of total assets of firm i at the end of year t;

GRS<sub>it</sub>: Sales growth rate of firm i in year t;

LEV<sub>it</sub>: Leverage ratio (= total liabilities ÷ total assets) of firm i at the end of year t;

CR<sub>it</sub>: Liquidity Proxy of firm i in year t (= current liabilities ÷ current assets);

BIG<sub>it</sub>: 1 if Big 4 auditor audited firm i's financial statements for year t, and 0 if otherwise;

MSH<sub>it</sub>: Share percentage of major stockholders and their related party of firm i in year t;

FSH<sub>it</sub>: Share percentage of foreign stockholders of firm i in year t;

ROA<sub>it</sub>: Return on asset (= net income ÷ beginning total assets) of firm i in year t;

TA<sub>it</sub>: Total accruals/(net income - net operating cash flows) in year t.

## 5.2 Mean Comparison Analysis

The means for each regression variable and ROA for the SRI and Non-SRI firms are presented in Table 4, which can compare the financial characteristics between the two groups. The means of all the variables, except DA-KO and MSH, are significantly greater in SRI than in Non-SRI fund firms. The means for DA-MJ and GRS differ significantly at 5% and those for the other variables, at 1%. Especially, ROE (ROA) of SRI fund firms is 4.55% (2.01%) higher on average. This indicates that firms perform more profitably in the year when their common stocks are selected into the SRI fund.

&lt;Table 4&gt; Comparison of Variable Means: SRI vs. Non-SRI Fund Firms

Variable	(1) SRI Firms	(2) Non-SRI Firms	(3) Mean Difference: (1) - (2)	t Value
DA-MJ	0.0076	-0.0013	0.0088 **	1.7964
DA-KO	0.0010	-0.0005	0.0015	0.3276
ROE	10.55%	6.01%	4.55% ***	3.5090
ROA	6.58%	4.58%	2.01% ***	3.9687
OCF	8.33%	7.18%	1.15% ***	2.1284
SIZ	20.3377	19.1139	1.2239 ***	12.1997
GRS	0.0833	0.0718	0.0115 **	2.1284
LEV	20.3377	19.1139	1.2239 ***	12.1997
BIG	0.8304	0.7043	0.1261 ***	6.1341
MSH	37.7870	38.3885	-0.6015	-0.7868
FSH	16.80%	11.85%	4.94% ***	6.1264

1) \*, \*\*, and \*\*\*: Significant at a 10%, 5%, and 1% level, respectively

2) See <Table 3> for definitions of variables.

### 5.3 Multiple Regression Test Results

The regression results show that both Modified Jones (DA-MJ) and Kothari (DA-KO) models produced almost the same results though adjusted R<sup>2</sup> of Kothari model shows almost 80%, whereas Modified Jones, as presented in Table 5. The coefficient of SRI shows a positive value, significantly at 5% in both models. This result of greater DA (discretionary accruals) in SRI fund firms tells us that the null hypothesis is rejected, in favor of the existence of positive association

between SRI fund firms and their earnings management. In other words, SRI fund firms tend to engage in more earnings management and thus report with lower quality of earnings.

Regarding the control variables, the regression coefficients of most independent variables such as ROE, OCF, GRS, LEV, MSH, and FSH in both models are found to be significant all at 1% level. Only the coefficients of SIZ and BIG are insignificant.

<Table 5> Multiple Regression Test Result:

Independent Variable	DA-MJ (Modified Jones model)			DA-KO (Kothari model)		
	Regression Coefficient.	t Value	P Value	Regression Coefficient.	t Value	P Value
Intercept	0.0604 <sup>***</sup>	2.8851	0.0040	0.0604 <sup>***</sup>	5.3116	0.0000
SRI	0.0073 <sup>**</sup>	2.1192	0.0342	0.0073 <sup>**</sup>	2.2442	0.0249
ROE	0.1371 <sup>***</sup>	23.4869	0.0000	0.1371 <sup>***</sup>	23.4015	0.0000
OCF	-0.6854 <sup>***</sup>	-44.4215	0.0000	0.6854 <sup>***</sup>	-81.4259	0.0000
SIZ	-0.0001	-0.1210	0.9037	-0.0001	-0.7440	0.4570
GRS	0.0259 <sup>***</sup>	10.8272	0.0000	0.0259 <sup>***</sup>	11.7382	0.0000
LEV	-0.0725 <sup>***</sup>	-8.2974	0.0000	0.0725 <sup>***</sup>	-7.2884	0.0000
BIG	0.0027	0.7179	0.4729	0.0027	0.5196	0.6034
MSH	0.0004 <sup>***</sup>	3.6116	0.0003	0.0004 <sup>***</sup>	3.6793	0.0002
FSH	0.0542 <sup>***</sup>	4.2665	0.0000	0.0542 <sup>***</sup>	4.3866	0.0000
F Value	169.04 <sup>***</sup>			497.42 <sup>***</sup>		
Adjusted R <sup>2</sup>	0.5708			0.7971		
N	1,770			1,770		

1) \*, \*\*, and \*\*\*. Significant at a 10%, 5%, and 1% level, respectively

2) See <Table 3> for definitions of variables.

## 6. CONCLUSIONS

This study found that the sample SRI fund firms operated more profitably with ROE (or ROA) being 4.55% (or 2.01%) higher on average during the period from the year 2010 to 2015. This indicates that firms perform more profitably in the year when their common stocks are selected into the SRI fund.

But this seemingly higher profitability of SRI fund firms might be the result of their engagement in earnings management during the period. To examine this issue, this study empirically examined the association between SRI fund firm membership and the firm's earnings management, based on the sample of 1,770 Korea Exchange (KOSPI)-listed firms whose stocks selected into an SRI fund during the six years from 2010 to 2015. The application of the Modified Jones and Kothari models for discretionary accruals produced virtually the same result: both models revealed that SRI fund firms tend to more engage in earnings management than non-SRI fund firms. This empirical evidence implies that management of SRI fund firms may focus on the trend of short-term earnings per financial statements rather than on long-term earnings sustainability.

## REFERENCES

- Bauer, R., K. Koedijk, and R. Otten. (2005), "International Evidence on Ethical Mutual Fund Performance and Investment Style," *Journal of Banking and Finance* 29 (7), p.p: 1751-1767.
- Bentham, J. (1996), "An Introduction to the Principles of Morals and Legislation. Clarendon," New York: Oxford University Press.
- Card, D., Hallock, K. and E. Moretti. (2010), "The Geography of Giving: The Effect of Corporate Headquarters on Local Charities," *Journal of Public Economics* 94(3), p.p: 222-234.
- Carroll, B. A. (1999), "Corporate Social Responsibility," *Business & Society* 38 (3), p.p: 268-295.
- Derwall, J. N. Guenster, R. Bauer, and K. Koedijk. (2005), "The Eeo Efficiency Premium Puzzle," *Financial Analyst Journal* 61 (2), p.p: 51-63.
- Derwall, J., K. Koedijk, and J. Ter Horst. (2011), "A Tale of Values Driven and Profit-Seeking Social Investors," *Journal of Banking and Finance* 35 (8), p.p: 2137-2147.

7. Dhaliwal, D. S., Li, O. Z., Tsang, Albert. & Yong George Yang. (2011), "Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting," *The Accounting Review* 86 (1), p.p: 59-100.
8. Dhaliwal, D. S., Radhakrishnan, S., Tsang, A. and Y. G. Yang, (2012), "Nonfinancial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure," *The Accounting Review* 87 (3), p.p: 723-759.
9. Gregory, A., John Matatko, and Robert G. Luther. (1997), "Ethical Unit Trust Financial Performance: Small Company Effects and Fund Size Effects," *Journal of Business Finance and Accounting* 24 (5), p.p: 705-725.
10. Hamilton, S., H. Jo, and M. Statman. (1993), "Doing Well While Doing Good? The Investment Performance of Socially Responsible Mutual Funds," *Financial Analysts Journal* 49 (6), p.p: 62-66.
11. Jones, J. J. (1991), "Earnings Management during Import Relief Investigations," *Journal of Accounting Research* 29(2), p.p: 193-228.
12. Kim, Chang Soo. (2009), "Corporate Social Responsibility and Firm Value. Korean," *Journal of Financial Studies* 38 (4), p.p: 507-545.
13. Kim, Yongtae. Myung Seok Park, and Benson Wier. (2012), "Is Earnings Quality Associated with Corporate Social Responsibility?" *The Accounting Review* 87(3), p.p: 761-796.
14. Ko, Wan Suk and Su Sung Kim. (2015), "Capital Market Performance of Social Responsibility Investing (SRI) Firms. International," *Journal of Managerial Studies and Research* 3 (2), p.p: 91-102.
15. Ko, Wan Suk, Su Sung Kim, and Myoung Gi Cha. (2015), "Social Responsibility Investing (SRI) Firms and Earnings Management," *Advanced Science and Technology Letters* 84, p.p: 58-63.
16. Ko, Wan Suk; (2017), "Financial Performance of Socially Responsible Investing Fund Firms," *Korea International Accounting Review* 71, p.p: 289-308.
17. Kook, Chan Pyo and Yun Sik Kang. (2011), "Corporate Social Responsibility, Corporate Governance and Firm Value," *Korean Securities Association* 40 (5), p.p: 713-748.
18. Kothari, S. P., A. Leone, and C. Wasley. (2005), "Performance Matched Discretionary Accrual Measures," *Journal of Accounting and Economics* 39(1), p.p: 163-197.
19. Lev, B., Petrovits, C. and S. Radhakrishnan. (2010), "Is doing good good for you? Yes, Charitable Contributions Enhance Revenue Growth. Strategic," *Management Journal* 31 (2), p.p: 182-200.
20. Luther, R.G., J. Matatko, and D. C. Corner. (1992), "The Investment Performance of UK Ethical Unit Trusts," *Accounting, Auditing and Accountability Journal* 5 (4), p.p: 57-70.
21. Magness, V. (2006), "Strategic Posture Financial Performance and Environmental Disclosure, p.p: An Empirical Test of Legitimacy Theory," *Accounting, Auditing and Accountability Journal* 19 (4), p.p: 540-563.
22. Orij, R. (2010), "Corporate Social Disclosures in the Context of National Cultures and Stakeholder Theory," *Accounting, Auditing and Accountability Journal* 23 (7), p.p: 868-889.
23. Poddi, Laura. (2009), "Does Corporate Social Responsibility Affect the Performance of Firms?" Paper presented at the 10th bi-annual ECACES Conference, August, 28-30, (2008, at "Colloquio Scientifico sull'Impresa Sociale", May, 23 2008, Bari and at AISSEC, XVII Scientific Conference, University of Perugia, June, 25-27).
24. Prior, D., J. Surroca, and J. Tribo. (2008), "Are Socially Responsible Managers Really Ethical? Exploring the Relationship between Earnings Management and Corporate Social Responsibility," *Corporate Governance* 16(3), p.p: 160-177.
25. Pyo, Gyungmin and Ho-Young Lee. (2013), "The Association between Corporate Social Responsibility Activities and Earnings Quality: Evidence from Donations and Voluntary Issuance of CSR Reports," *The Journal of Applied Business Research* 29(3), p.p: 945-962.
26. Shin, Min Shik; Soo Eun Kim, and Byoung Soo Kim. (2011), "The Effects of Corporate Social Responsibility Expenditure on Firm Value," *The Korean Journal of Financial Engineering* 10 (1), p.p: 99-125.
27. Statman, M. (2000), "Socially Responsible Mutual Funds," *Financial Analysts Journal* 56 (3), p.p: 30-39.
28. Ullman, Arie A. (1985), "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), p.p: 540-557.
29. US SIF Foundation, (2012), (2014), "Report on Sustainable and Responsible Investing Trends in the United States."
30. Waddock, S. & Graves, S. (1997), "The Corporate Social Performance Financial Performance Link," *Strategic Management Journal* 18 (4), p.p: 303-319.
31. Yoon, Byung Seop and Jae Young Cha. (2012), "A Study on Financial Performance of Socially Responsible Investing Fund Corporations," *Korea Journal of Business Administration* 25 (6), p.p: 2665-2685.