"Socially responsible investment and financial performance: evidence from the Johannesburg securities exchange"

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Socially responsible investment and financial performance: evidence from the Johannesburg securities exchange

Abstract

Socially responsible investment (SRI) is fast becoming one of the major considerations for investors across the world. Both corporate and individual investors use the SRI index of organizations to make investment decisions. Although this model of investing is popular in the Western world, evidence suggests that the process has been gaining prominence in the developing world. The Johannesburg Securities Exchange (JSE) launched its Socially Responsible Investment Index (SRI Index) in 2004 as a means of identifying an index of listed companies that integrate the principles of triple bottom line reporting in their business activities. Using panel data regression, this article analyzes the financial performance of companies listed on the JSE SRI Index between 2004 and 2010 in relation to their social responsibility measures. The results demonstrate that companies listed as constituents of the JSE SRI Index have better financial performance than those that are non-constituents. A high awareness of social responsibility as indicated by the JSE SRI Index makes for a more profitable portfolio and enhances the prospects of listed companies that are rated as having attained a certain level of social responsibility as indicated by the JSE SRI Index to yield better returns to their investors.

Keywords: socially responsible investing, corporate social responsibility, Johannesburg securities exchange, financial performance, SRI Index.
JEL Classification: L1, Q56.

Introduction

The negative effects of globalization have motivated investors to demand information beyond economic and financial performance of firms (Shauki, 2011). In the business environment today, socially responsible investment (SRI) is becoming an increasingly important investment practice which focuses not only on the financial performance of companies, but also on their environmental, social and governance (ESG) performance (JSE SRI Index, 2008). Integration of best practices in ESG into the selection of companies for investment portfolios is considered by many investors to reduce the performance risk for their investment.

In an effort to address the changing investor demands, the Johannesburg Securities Exchange (JSE) launched its SRI Index in May 2004. Sun, Nagata and Onoda (2011) define the SRI Index as the stock price index of a series of companies which meet the requirements of corporate social responsibility. The Index provides the benchmark for socially responsible investing and contributes to the development of responsible business practice around the world. According to Herringer, Firer and Viviers (2009), SRI indices are an important element of financial markets as they define a particular universe of securities in which an investor can trade and serve as benchmarks of performance. For many companies, inclusion in the Index has become a strategic management goal as they strive to be in the best performers' category each year the Index is reviewed. Investors now realize that SRI Index-compliant companies are best placed to deliver returns over the longer term.

Socially responsible investing is widely acknowledged as a strategic tool that enables firms to gain competitive advantage in order to attain sustainable development (JSE SRI Index, 2008). Despite its importance, it has been difficult to verify whether companies that are constituents of the SRI Index perform better financially than non-SRI-indexed companies. No study has been done to investigate the relationship between SRI Index compliance and financial performance in developing and emerging markets. Previous research has focused on the relationship between SRI and the financial performance of mutual funds (Mzali and Turcotte, 1998; Barnett and Salomon, 2006). Studying SRI in an emerging African country may provide worthy implications as institutional investors now face pressure to consider sustainability criteria when assessing potential investments.

However, there have been several studies that show that companies with good corporate social responsibility (CSR) tend to perform better than those with less effective CSR. Campbell (2007) posits that firms that are less profitable have fewer resources to spare for socially responsible activities than those that are more profitable. The concept of CSR is the same as SRI in that they both consider the investors' financial needs, the environment and the investment's impact on society. According to Waddock and Graves (1997), corporations are less likely to act in socially responsible ways where they are currently experiencing relatively weak finance. It therefore follows that firms' profitability is expected to be positively related to their level of social responsibility, thus we used the return on assets (ROA), return on equity (ROE) and earnings per share (EPS) to measure the profitability of firms listed on the JSE SRI Index. The aim of this article

is to establish the relationship between SRI and financial performance of companies that are constituents of the JSE SRI Index.

The rest of the paper is organized as follows: Section 1 constitutes a brief discussion of the relevant literature and empirical framework as applied in this paper. Section 2 discusses the research methodology by providing an overview of the data and variables used in the study. This is followed by a discussion of the results of the regression estimates and various statistical tests that were conducted (section 3). The final section concludes the article and presents possible policy implications and recommendations.

1. Literature review

The field of Socially Responsible Investment (SRI) remains characterized by a lack of consensus regarding definition. Although many authors have tried to give a full definition of SRI, an exact definition is elusive and yet to be formulated (Dahlsrud, 2008). According to Pearce and Robinson (2004), SRI is a concept that obliges corporate bodies not to only be concerned with profits and economic performance, but also to report on their social responsibility activities.

Nowadays, companies are facing increasing pressure to go beyond making profits and to behave in socially responsible ways (White, 1993; Mohr and Webb, 2005); more specifically, their reporting standard suggests an integrative approach that covers both financial and social performance. Due to the pressure of various interest groups, the SRI concept has earned itself a series of fond names, such as "ethical investing", "green investing", "targeted investing", "responsible investing" and more recently, "sustainable investing" (White, 1995, p. 323; Cowton, 1998, p. 181; Cranston, 2004; Petersen, 2005). SRI is therefore the practice of choosing financial investments on the basis of social responsibility criteria (Barnett and Salomon, 2006). Numerous authors proposed a wide range of definitions. Carroll (1979), states that social responsibility of companies encompasses the economic, legal and discretionary expectations that society has of an organization at a given point in time. Although this definition enjoyed wide popularity at one time, Carroll revised it and proposed a three-domain model depicting economic, legal and ethical responsibilities (Schwartz and Carroll, 2003).

The rapid growth of SRI in recent years is the best evidence that sustainable and responsible investing yields competitive returns. The amount of money invested in SRI activities has grown exponentially over the past 20 years, as well as the number of institutional, professional and individual investors involved in the field. These institutional investors include public pension funds, faith-based investors, and socially responsible mutual funds. Between 1995 and 2010, the total funds under professional management in SRI grew from $639 billion to $3.07 trillion, outpacing the overall market (Radu and Funaru, 2011).

As a result of SRI investing strategies, the reputation of the companies involved has improved and consequently shareholder value is enhanced in the long run. In addition, SRI investors seek to build wealth in underserved communities worldwide. With SRI, investors can put their money to work to build a more sustainable world while earning competitive returns in both the short and the long term. The majority of the research on SRI is based on the risk-adjusted returns of mutual funds and not on the financial performance per se. However, many studies have been carried out on the relationship between corporate social responsibility and financial performance as discussed in the section below.

1.1. The link between social responsibility and financial performance. There are two main schools of thought about the responsibilities of organizations. On the one hand, there is the shareholder view which states that the only responsibility of the firm is to maximize its profits within legal boundaries (Friedman, 1970). Friedman (1970) argues that the pursuit of social goals imposes additional costs, and reduces economic efficiency, competitiveness and profitability. On the other hand, the stakeholder view entails a broader span of business responsibilities towards society. In his stakeholder theory, Freeman (1984) posits that a business is made up of several stakeholders that have an interest in it. In this case each stakeholder group has expectations of the corporation. The way the corporation reacts to these expectations is critical to its current and future success (Aras and Crowther, 2008). On the other hand, other researchers argue that trying to satisfy the conflicting objectives of different stakeholders might result in inefficient use of resources and the eventual deterioration of financial performance, and that the costs incurred from socially responsible actions may put the firms at an economic disadvantage (Aupperle, Carroll and Hatfield, 1985; Ullman, 1985). According to Mohr and Webb (2005), socially responsible companies must therefore, be managed according to the stakeholder theory.

SRI-related research has been dominated by studies in the context of western countries such as the USA, the UK and Australia. Only a few studies have applied SRI to developing countries (Lokshin, Nithin and Paternostro, 2001; Peinando-Vara, 2006). According to Arli and Lasmono (2010), socially re-

sponsible investing is still a concept which needs to be applied in developing countries and therefore, it is important to understand the extent to which SRI activities are valued in these countries.

The extensive research that has been undertaken tends to focus on the relationship between corporate social performance and financial performance (Cochran and Wood, 1984; McGuire, Sundgren and Schneeweis, 1988; Waddock and Graves, 1997; Hillman and Keim, 2001; Orlitzky, Schmidt and Rynes, 2003; Coombs and Gilley, 2005; Odemilin, Samy and Bampton, 2010; Oeyono, Samy and Bampton, 2011). These studies revealed mixed results. Controversies about the link have, however, been debated since the mid-1970s and still consensus has not been reached (McWilliams and Siegel, 2001; Dincer and Dincer, 2011). According to one group of scholars, social responsibility detracts from a firm's financial performance (Friedman, 1970; Jensen, 2002). On the other hand, another group of scholars argued that firms that are socially responsible attract resources (Cochran and Wood, 1984; Waddock and Graves, 1997) and even create unforeseen opportunities (Fombrun, Gardberg and Barnett, 2000). Thus, as Porter (1991) has stated, social responsibility is a source of competitive advantage because companies are consequently perceived as being accountable and transparent in their dealings. However, recent studies seem to indicate that socially responsible investing does not have a positive impact on financial performance (Neiling and Webb, 2009; Shen and Chang, 2008; Renneboog, Horst and Zhang, 2008).

From the investor's perspective, SRI is an area of concern for many reasons. It may be argued that investors have countervailing concerns, because while they want to invest responsibly, they also want and need good returns. A distinctive question asked by investors is: Does SRI translate to higher profits or is it an unnecessary extra cost? If SRI activities are assumed to be associated with significant costs, those firms may become uncompetitive and forego profits (Alniacik, Alniacik and Genc, 2011). However, companies with a positive reputation for social responsibility may develop more loyal customers and employees and suppliers, thus leading to higher profits (Brown, 1997). Teoh and Shiu (1990) argue that if social responsibility information were presented in a quantified, financial form, and were focused on product improvement and fair business practices, such information would be perceived as being more important for investment decision making.

1.2. Empirical evidence on SRI and financial performance. Graves and Waddock (1994) identified a positive link between institutional investors' stock

preferences and socially responsible organizations as measured by accounting indicators such as price earnings ratio, earnings per share and the operating earnings/asset ratio. They suggested that this preference was due in part to the long-term performance of the investment. Aupperle, Carroll and Hatfield (1985) detected no significant relationship between social performance and a firm's risk-adjusted return on assets. Socially responsible activities may develop goodwill capital that might also serve as a risk-reducing factor for the firms. Corporations with a poor SRI record might be expected to be more susceptible to adverse government actions in the form of fines and lawsuits (Lev, Petrovits and Radhakrishnan, 2008), or to drastic reductions in income due to sudden societal forces in the product/service market place, caused by disclosure of corporate wrong-doing or of a major industrial or environmental accident (Dincer and Dincer, 2011).

Further, in a study of the relationship between CSR and financial performance based on EPS of 20 selected UK corporations, Odemilin et al. (2010) found a positively weak relationship. They came to the conclusion that "CSR investments are not just another business cost but are essential for a firm's continued survival in the ever-increasingly competitive business world of today" (Odemilin et al., 2010, p. 2). In another study of the top 50 Indonesian listed corporations, Oeyono, Samy and Bampton (2011) found that there is a weak positive relationship between CSR involvement of companies and their bottom-line desire for profitability. The role of an active parameter estimate might have been significant in that study, as the authors included variables such as earnings before interest, tax, depreciation and amortization (EBITDA) and EPS. They therefore argued that it is beneficial to report social responsibility activities of firms for developing economies like Indonesia in the company's financial books of record.

In a study of 56 large corporations in the UK, Balabanis, Phillips and Lyall (1998) found that there is a relationship between corporate social responsibility and economic performance (which is divided into financial, i.e. return on capital employed, return on equity and gross profit to sales ratios; and capital market performance, i.e. systematic risk and excess market valuation). The relationship was found to be weak and lacking in overall consistency. The variables used were three accounting-based measures, namely return on capital employed (ROCE); return on equity; and the ratio of gross profit to sales (GPS). The ratios of return on capital employed and the return on equity measure the relative efficiency of asset utilization. A major strength of the ROCE ratio is that it is free from the effects of bias that can result from differences in capital structure between firms (Balabanis et al., 1998). However, both ROCE and ROE can be dis-

torted by the effect of inflation on the book value of the assets.

Tsoutsoura (2004) also explored and tested the relationship between corporate social responsibility and financial performance. To measure financial performance, accounting variables such as return on assets, return on equity and return on sales were used in the study. The authors found a positive relationship between financial performance and socially responsible investing, which is in line with the findings of previous research such as (Waddock and Graves, 1997; and McGuire et al., 1988). These authors also used various accounting-based measures such as the return on assets, firm growth rate, advertizing intensity and firm size. These studies also established the existence of a positive relationship between social and financial performance. However, according to Mzali and Turcotte (1998) the correlation neither implies the existence of causal relationship, nor does it suggest a significant one.

Using panel data estimation, Setiawan and Darmawan (2011) investigated the relationship between CSR and financial performance for firms listed on the Indonesian Stock Market. Financial performance in this instance was measured using both the market and the accounting definitions. Financial performance was measured by ROA and ROE as independent variables. The results indicated that corporate social responsibility has a positive effect on financial performance. However, the authors also found that the positive effect of CSR on the firms' financial performance was further weakened by the financial crisis of 2008.

Based on the literature review, it appears as if the concept of socially responsible investing and most of the empirical work on the topic originate from the developed world, mainly the US and Europe. There is also an indication that the vast majority of the academic research concentrates on the effects of social responsibility on the financial performance of firms and not on the SRI Index per se, especially in developing and emerging markets. Research pursuing the effect of socially responsible investing on investor decisions based on the SRI Index is therefore relatively scarce. The main objective of this study is to add to the existing literature by considering the impact of SRI Index compliance on the financial performance of firms listed on the Johannesburg Securities Exchange in an emerging country context.

1.3. The JSE SRI Index qualifying criteria. In order to make it onto the SRI Index, companies are assessed against the criteria as determined by the JSE in consultation with the Advisory Committee on an annual basis. Companies have to meet the minimum core and desirable indicators as set out in the criteria. The SRI Index Advisory Committee (here after 'the Committee') is responsible for considering and advising on principles and operational matters relating to and pro-

posed amendments to the ground rules governing the management of the SRI Index and to ensure that, as far as possible, best practice is used in the construction and management of the SRI Index. Although the Committee is appointed by the JSE, it operates independently of the JSE and it is responsible for reviewing the selection methodology for constituent companies and the treatment of securities within the Index and may make recommendations arising there from to the JSE. As such the Committee oversees the annual review process and advises the JSE on process issues, dealing controversies and borderline issues, while the final decision on which companies are included in the Index rests with the JSE. In fact, the Committee does not have sight of any results documentation (JSE SRI Index, 2011).

The membership of the Committee is intended to be representative of the users of the SRI Index and of the SRI industry. The Committee's membership therefore includes experts from the social responsibility and sustainability arenas, independent investment professionals, academics, listed companies and JSE SRI Index data providers. Members thus act as independent experts.

Companies are assessed against criteria across the triple bottom line (environment, society and economy) as well as governance (forming the foundation of the triple bottom line pillars). Within each area of measurement, companies are assessed based on policy, management/performance and reporting. The triple bottom line philosophy is retained in the assessment process, but the indicators are structured along ESG lines (environment, society and governance), in keeping with the framework promoted by the United Nations Principles for Responsible Investment (UNPRI) (Viviers, 2007). Within the environmental criteria, companies are classified as high, medium or low impact, based on their activities. In applying the society and governance criteria, a thematic approach is followed to reflect global standards while accommodating issues peculiar to South Africa, such as Black Economic Empowerment (BEE) Economic factors and related sustainability concerns reflective of the emerging market are also incorporated (Sonnenberg and Hamann, 2006).

For rating within the SRI Index, companies need to demonstrate the integration as well as how the principles of the triple bottom line practices are being implemented. Based on the criteria, companies are assessed in four areas of performance, namely economic sustainability, environmental sustainability, social sustainability and corporate governance. The performance of each company in relation to each area is measured across a range of criteria and the resultant rating is based on a scoring system. All the companies are rated along the lines of policy, management and performance as well as reporting and consultation.

The impact of each company for the listed criteria is measured in terms of low, medium and high. A minimum score from all the rated performances for the criteria determines whether or not a listed company has achieved sufficient merit to be included in the SRI Index.

In keeping with the Index's approval of constantly being in a state of self-developing, more detailed criteria are being introduced for areas such as climate change, bribery and corruption, human rights and supply chain management. The JSE does not currently publish rankings or indicate how companies fare relative to each other. However, over the years the JSE has made incremental disclosures of outstanding performers by companies.

It has been over seven years since the concept was formally adopted in South Africa, and the decisions to do an analysis of the performance of SRI are informed by the need to evaluate the merits of adopting socially responsible investing as a working and profitable policy for investors and shareholders of listed companies on South Africa's main stock exchange, the JSE.

2. Methodology

2.1. Data and variables. The aim of this analysis is to determine whether there is a difference in financial performance between companies that are JSE SRI index-compliant and those that are not. In this article, accounting measures as opposed to market measures are used to evaluate the financial performance of the firms listed on the JSE. The financial performance measures used include ROA, ROE and EPS. ROA is a profitability ratio and is calculated by dividing net income plus interest expense by the average total assets. ROE is another measure of profitability that focuses on the return on the shareholder's equity. This variable is derived by dividing net income by average equity. EPS indicates how much profit was generated on a per share basis, and is calculated by dividing net income by the average number of common shares outstanding. The data relating to the financial performance and relevant financial ratios of various firms were obtained from the McGregor Bureau of Financial Analysis (BFA) database, a subscription service supplying real-time and historical financial information on South African listed companies. As in the study conducted by McWilliams and Siegel (2000), the measure of social responsibility is a dummy variable. There is no quantitative measurement of the SRI Index in South Africa. Using a dummy variable allowed us to measure the effects of socially responsible investing on financial performance in that a company either complies or not as a constituent member of the JSE SRI Index. Therefore the SRI variable has a value of 1 if it is a constituent member of the JSE SRI Index and a value of 0 if it is not. The model was estimated using the STATA software package.

The basic regression model for a balanced panel data set is:

$$Y_{it} = X_{it}\,\beta + \alpha + \mu_{it}, \tag{1}$$

where $t = 1… 7$, $i = 1….224$, Y_{it} = dependent variable such as ROE, ROA, EPS, X_{it} = independent variable (such as debt to equity ratio, capital employed, total assets, size, age, SRI dummy), β and α are the coefficients of regression and μ_{it} is the error term.

Panel data regression analysis, using the random effects method, was used to investigate the relationship between SRI and financial performance. Our dependent variables were ROA, ROE and EPS as financial performance indicators; explanatory variables included debt/equity, capital employed, controlling for size (total assets) and age. SRI was the primary independent variable in this study. Panel data seems to be the most appropriate method of capturing the variation over time of the performance indicators, since we may control for individual firm heterogeneity, firm-specific heterogeneity, as well as temporal changes in the firms operating environment (Garcia and Anson, 2011). Thus, problems caused by possible correlation between non-observable firm's characteristics and the individual variables are avoided (Hausman and Taylor, 1981). The Hausman test was therefore conducted to determine whether there is any correlation between specific effects and explanatory variables. It is the result of such a test that justified the choice between the fixed effects or random effects model (Baltagi, 2009).

The Hausman test is based on comparing the difference between the two estimators of the coefficient vectors, where the random effects estimator is efficient and consistent under the null hypothesis and inconsistent under the alternative hypothesis. The fixed effects estimator is consistent under both the null and the alternative hypothesis. If the null is true then the difference between the estimators should be close to zero. With fixed effects (the within method) the data is demeaned and therefore all time-constant variables and dummy variables are wiped out as independent variables. The test results suggest that using panel data of a large cross-section of firms with endogenous heterogeneity over a seven-year period requires a random effects regression approach to account for correlation in the error term. The details of these statistical approaches are explained in the following section.

3. Data analysis and discussion

3.1. Descriptive statistics. Table 1 shows descriptive statistics for all the variables used in the study. According to Table 1, it can be noted that all variables have a positive mean with EPS having the highest mean of 336.8884 and total assets having the lowest mean of 1.322304. Furthermore, EPS has the highest

standard deviation of 1711.52 and maximum value of 61323.47. Moreover, the mean of ROE (17.68447) is greater than that of ROA (13.00377), indicating that South African listed companies use more debt in their capital structure. In other words, companies prefer to finance their assets by debt, especially short-term debt.

Table 1. Descriptive analysis

Variable	Observation	Mean	Std. Dev	Min	Max
Assets/ Cap	1567	1.666112	5.739416	12.4514	224.6289
Debt/ Equity	1567	3.139816	21.42347	25.8515	424.1296
EPS	1567	336.8884	1711.52	2245	61323.47
ROE	1567	17.68447	449.2376	2898.62	17063.16
ROA	1567	13.00377	63.32488	645.9259	1706.316
Total assets	1436	1.322304	1.119711	0	7.6728
Industry	1568	7.135204	4.06907	1	13
Age	1568	23.62245	22.07012	1	113

3.2. Correlation matrix. The correlation matrix for the sample of firms used in this study is reported in Table 2 below. The correlation between SRI and measures of financial performance is of particular interest in this study. In the second column of Table 2, we see that ROA is positively correlated with ROE. However, this will not lead to multicollinearity as the two variables are used as alternative dependent variables. SRI is positively correlated with EPS, ROE, ROA and assets-capital employed. There is a negative correlation between SRI and firm size, measured by total assets. This simple correlation analysis does not address issues of causality, but provides initial evidence that SRI and financial performance are directly related.

Table 2. The correlation matrix for the dependent and explanatory variables

Variable	EPS	ROE	ROA	Total assets	D/ Equity	Assets-p	SRI	Age
EPS	1.000							
ROE	0.0228	1.000						
ROA	0.0058	0.7147	1.000					
Total /A	0.0472	-0.0043	0.0009	1.000				
D/E	-0.0136	-0.0073	-0.0419	-0.0039	1.000			
Assets/ Cap	-0.0027	-0.0120	-0.1667	-0.0031	0.2747	1.000		
SRI	0.0760	0.0102	0.0035	-0.0153	-0.0036	0.0015	1.000	
Age	0.0761	0.0217	-0.0350	0.0380	0.0605	0.1125	0.1067	1.000

3.3. Multiple regression analysis. Three models were estimated with ROA, ROE and EPS as dependent variables. Explanatory variables were SRI, debt-to-equity, asset/capital, total assets and the age of the firm.

Table 3. Random effects regressions of corporate social responsibility and financial performance

	Reg. 1	Reg. 2	Reg. 3
Variable	ROE	ROA	EPS
Constant	45.91261***	11.4741***	147.8015***
	(17.47355)	(2.47807)	(66.57017)
SRI	5.801253	1.12281	274.4314*
	(26.24818)	(3.726637)	(100.1113)
Assets/ Cap	-13.01423***	-.1462647	-1.822211
	(2.041669)	(.2917924)	(7.838628)
Debt/Equity (Gearing)	.1022072	-.0148436	-1.251201
	(.5460918)	(.0778179)	(2.090477)
Total Assets (Firm size)	-1.73e-12	-1.89e-12	4057e-10*
	(6.58e-11)	(9.40e-12)	(2.52e-10)
Age	-.351433	.0655759	5.318591**
	(.5187141)	(.0735548)	(1.975955)
Wald χ^2	45.19***	1.21	16.84**
N	224	224	224

Source: *,**, *** indicates significance at the 10%, 5%, 1% levels respectively.

Table 3 presents the results of the random effects regression models. The results are similar to those of Tsoutsoura (2004) and Waddock and Graves (1997) in that they indicate that SRI is positively related to financial performance. The dependent variables used include ROE, ROA and EPS. The primary independent variable is SRI. SRI is positive but insignificantly correlated to both ROE and ROA, possibly because the seven-year period used in this study might be insufficient to give conclusive results. ROA can be dis-

torted by the effect of inflation on the book value of the assets. However, Dincer and Dincer (2011) obtained similar results.

It is interesting to note, however, that SRI is highly and significantly correlated to EPS rather than to ROE and ROA. Every one unit increase in SRI, ceteris paribus, increases ROE, ROA and EPS by 5.80, 1.12, and 274.43 respectively. Compliant firms will, on average, experience an increase of 274 units of EPS than those that are non-SRI-indexed. However, only the coefficient of EPS is significant at the 10% significance level. EPS is said to increase with increase in return on invested capital (ROIC) and growth if other things remain the same. The Wald is positive and significant for ROE and EPS regressions. The Wald test is similar to an F-test in that it is used to check whether all the coefficients in the model are significant in explaining the dependent variable.

Oeyono et al. (2011) found a weak but positive relationship between corporate social responsibility and EPS. However, the positive correlation between socially responsible investing and financial performance means that the more a company engages in SRI the higher EPS they will experience. Therefore, it is strongly suggested that firms that are SRI index compliant perform better financially. Age of the firm is also positively correlated to SRI at the 10% level of significance. This confirms previous findings that well established firms practice socially responsible investing as they no longer have high operating costs which would reduce their profits. Debt-to-equity, total assets and age were included as controls for firm size and leverage. Age was positive and significant for EPS but negative for ROE. According to Kalaitzglou, Fagbe and Niklewski (2012), older firms can enjoy economies of scale and can avoid the liabilities of newness.

Conclusions

Based on panel data estimation, this research investigated the impact of the SRI Index on the financial performance of the companies listed on the Johannesburg Stock Exchange for the period of 2004-2010. Data pertaining to the JSE-listed companies was obtained from the McGregor BFA database, based on variables which were believed to have a correlation with corporate social responsibility and financial performance. These variables included ROE, ROA and EPS, age, size and leverage. Using panel data regression, the article analyzes the financial performance of

the listed firms on the JSE between 2004 and 2010 in relation to their social responsibility measures.

The results indicate a positive but insignificant relationship between ROE and ROA measures of financial performance and SRI. However, SRI has a positive and significant impact on earnings per share (EPS). The results are in line with previous research findings of Graves and Waddock (1994), Orlitzky et al., (2003), Setiawan and Darmawan (2011), which tend to find a positive association between social responsibility and financial performance. The results therefore suggest that those JSE-listed companies which are SRI-index compliant tend to perform financially better than those that are non-compliant. Thus, SRI Index compliance by firms listed on the JSE should be increased to have better implications for the firm's financial performance. The findings suggest that the improvement and development of socially responsible investment activities should be promoted so as to have more benefits for the firms with respect to EPS. Based on the findings, the study recommends that listed firms in South Africa should strive to be included on the JSE SRI Index in order to boost their financial performance and attract investors. Negative publicity reduces the corporate social responsibility ratings of organizations, resulting in some companies being deleted from the JSE SRI Index.

This conclusion is consistent with the findings of McWilliams and Siegel (2000) that the linkage between social responsibility and financial performance would be uncertain when variables of greater accuracy were introduced into the economic models. Unlike the majority of studies on this topic, the analysis is based solely on the impact of the SRI Index on the financial performance of companies listed on the JSE since its inception in 2004. Besides the use of panel data estimation in the research, this article also contributes to the literature by providing evidence of the impact of SRI Index compliance on the financial performance of listed companies in an emerging market like South Africa. The article concludes by highlighting possible limitations of this study that need to be addressed in future. The seven-year period covered by this study may not be long enough to generalize the results. It would be necessary to exercise caution when deriving inference from the results of this study. South African and international investors now have a tool to select companies which are in line with their own investment policies.

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